



Food and Agriculture
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Empowering women in Afghanistan

Reducing gender gaps
through Integrated Dairy Schemes

Ruxandra Boros
and
Anni McLeod

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Preface

Milk and dairy products are crucial for the daily food security and income generation of Afghan families. Women play a significant role in activities related to animal husbandry. Since 2005, FAO has been implementing the Integrated Dairy Schemes (IDS) project, with financial support from the Afghan, German and Italian Governments and the International Fund for Agricultural Development (IFAD). The aim of the project is to improve food security in Afghanistan by supporting the national dairy sector. Four milk processing plants have been set up in Herat, Kunduz, Mazar-i Sharif and Kabul. They are operating independently and successfully. Together, the four IDS produce 13 900 litres of milk. Over 5 700 smallholder farm families, including 1 540 women, benefit on a daily basis from the regular “milk money”.

The Social Protection and Rural Infrastructure and Agro-industry Divisions of FAO, in collaboration with the FAO Representation in Afghanistan, decided to undertake a detailed assessment of the project to investigate its impact in depth on rural Afghan women and their families. The assessment identified lessons learned and pragmatic recommendations to inform the design and implementation of gender-sensitive and inclusive dairy programmes, and is intended for practitioners, governments, development partners and the private sector interested in engaging in inclusive small- and medium-scale dairy industry development.

The publication draws on the evidence gathered during implementation of the project on the multiple benefits for gender equality and women’s empowerment. The intervention, in fact, proved to be successful in increasing women’s access to income, and in improving women’s socio-economic status within the household and community. IDS can be seen as the first stepping-stone for a large number of rural women to start establishing a better place for themselves in Afghan society.

Acknowledgements

The review was carried out in close consultation with the FAO representation in Afghanistan under the direct technical supervision of Ms Regina Laub, Senior Gender Officer (FAO Social Protection Division, ESP) and Mr Anthony Bennett, Livestock Industry Officer (FAO Rural Infrastructure and Agro-Industries Division, AGS). Ms Alejandra Safa (FAO, ESP) provided valuable input throughout the mission and in the development of this publication. The trip to Afghanistan was preceded by an initial briefing at FAO headquarters in Rome and, upon completion, by a debriefing, a seminar to present findings from the mission, and other meetings in Rome.

In Afghanistan, the assignment was facilitated by the project's international Country Technical Advisor (CTA), Mr Tek Thapa, the Senior Dairy Advisor, with support from Mr Lutfullah Rlung, National Professional Officer and Mr Hamed Salimee (formerly FAO Marketing Manager at the Herat IDS) and the FAO project staff based in the cities visited as part of the field trip. Two National Consultants participated in the mission: Ms Sharifa Sarwar in Kabul, Mazar-i Sharif and Kunduz, and Ms Hamila Afshin in Herat. Ms Sarwar is one of the two women trainers from the FAO team working on the Jalalabad IDS; she provided interesting insights about the projects and more specifically about the women farmers from Nangarhar.

The consultants would like to acknowledge the helpful information and guidance given by FAO in Rome. Support provided by the FAO office in Kabul, the IDS/FAO project team during the mission and at the sites visited, and the dairy union leaders and women milk producers and trainers is much appreciated.

Publishing production was coordinated by Ms Larissa D'Aquilio (FAO, AGS); copy editing by Ms Roberta Mitchell; design by Mr Omar Bolbol; quality control by Mr Simone Morini (FAO, AGS); and proofreading by Ms Lynette Chalk.

Executive summary

This report reviews the Integrated Dairy Schemes (IDS) in Afghanistan from a gender perspective and recommends ways to consolidate and reinforce the schemes in the future. It focuses on four of the five existing IDS, located in Kabul, Balkh, Kunduz and Herat. As part of the assignment, a field survey was undertaken with project beneficiaries to provide qualitative and quantitative information.

Data sources included project reports provided, consultations with the Ministry of Agriculture, Irrigation and Livestock (MAIL) and the provincial Department of Agriculture, Irrigation and Livestock (DAIL) and other partners, and interviews held during field visits. Although the project approach is the same, the four projects cater for different markets and operate within different cultural contexts; furthermore, they are at different stages of institutional and enterprise development.

The IDS approach was developed by FAO, based on previous experience of the livestock sector in Afghanistan and of smallholder dairy industry development initiatives elsewhere. It has proved to link consumer demand and small-scale dairy farming effectively in Afghanistan. The aim of IDS is to improve food security in Afghanistan by supporting the national dairy sector through the development of IDS. These are based on the formation of smallholder farmer cooperatives, organized at village level, which together form a dairy union at provincial level. The IDS model consists of a dairy value chain – managed by the union as an enterprise – that encompasses milk production, collection, processing and marketing of pasteurized milk and dairy products. Inputs and services are organized around these activities. IDS has helped milk producers to decrease milk loss, thanks to their dairy cooperatives and enterprises, as well as refrigeration systems introduced along the dairy value chain.

IDS were not designed with a gender strategy, but were based on FAO's knowledge of the roles and responsibilities of women and men in Afghanistan's livestock sector. The approach ensured that IDS had a strong empowering effect on women as beneficiaries of the project. Indeed, women milk producers in Afghanistan are able to retain, manage and spend almost 90 percent of proceeds from milk sales. The union offers an opportunity for women to sell their cow milk at village level and to receive a weekly cash income from sales.

Women participate in the dairy value chain almost exclusively at the first stage, as milk producers, while men play different roles along all the links of the value chain. It is important to note that the unions are run almost exclusively by men. The four dairy unions currently have 5 574 registered members, of whom approximately 28 percent or 1 540 are women. Of these, only in one IDS, Herat, six women participate in the leadership of the union as members of its governing body.

Thanks to the IDS training and extension services, farmers improve their cattle breeds and feeding and increase the number of milk cows they own, substantially raising their incomes. Cattle owners participating in IDS produce between 5 and 20 litres of milk/day compared with the average 3.2 litres produced by small-scale dairy farmers in Afghanistan. A woman who sells 15 litres/day at the Balkh Livestock Development Union (BLDU), for example, can generate a monthly income of US\$140, a significant income in rural Afghanistan. An additional benefit to women is that better-fed cattle produce more dung, which is used as fertilizer on crops and, most important, as a replacement for firewood, reducing the pressure on wood consumption and the workload and risks for women.

Training under IDS appeared to be crucial to women's empowerment since, in addition to improved cattle management, they learn valuable skills that enable them to take care of themselves and their families better. Consequently, their bargaining power in the household and the community has improved, as has their ability to spend money on what they consider priority needs, such as more education for girls and boys, improved nutrition and access to health services for the family. Thanks to training, women also improved their social standing and their freedom of movement; some of them participated in exchange visits organized by IDS to other cooperatives, thus widening their horizons. Furthermore, some women participate in the public sphere and some are even involved in politics at village and district level. This may have a strong long-term impact, leading in time to rural communities with more balanced gender roles and gender dynamics.

The dairy unions are important on- and off-farm employers, a major achievement in Afghanistan, where formal employment is scarce and most Afghans are active in the informal sector. However, employees are overwhelmingly men – of 109 staff, only eight are women. IDS also provides income-generating activities for over 200 men along the value chain, all paid by commission.

From a gender perspective, IDS can be seen as the first stepping-stone for a large number of rural women to start consolidating a better place for themselves in the strongly patriarchal society of Afghanistan, especially in rural areas. The IDS model is continuously improving and, above all, it is upgrading the status of women participants. However, to realize the full potential of IDS, women farmers need to be able to obtain increased benefits from their participation in the dairy value chains. Unions have to promote women milk producers across the value chain and increase their participation as registered members and decision-makers in the union. Furthermore, IDS needs to increase the numbers of employed women, especially at the dairy processing plant and in the union.

The report recommends that FAO Afghanistan and IDS take steps to consolidate gains to date and further develop the participation of women. These could include:

- developing a gender strategy to encourage unions to consolidate the gains in women's empowerment obtained so far;
- appointing a senior woman gender officer within the FAO team to work on the IDS project;
- expanding training for women to include training in entrepreneurship;
- enhancing diversification of dairy enterprises and cooperatives into other activities where women have an active role and can benefit their families;
- exploring concrete and practical steps to increase women's employment in milk collection centres, milk processing plants and milk sales to consumers; and
- helping women IDS participants to build networks for support and information exchange and link to other women's initiatives.

It will be important to monitor progress and, to this end, a baseline gender study will need to be undertaken rapidly to document existing data, in order to have a solid base from which to report gender transformation within IDS. All these steps will need to be taken with care and sensitivity in order to retain the good community relations that have been established so far.

IDS are considered the country's largest and most successful cooperatives. Currently organized in separate unions at provincial level, they have the potential to unite under a national federation. From a gender angle, this might give an impulse to women's empowerment, especially as female farmers in IDS start to become involved as registered union members and participate in decision-making.

Abstract

This publication assesses the gender impacts of the Integrated Dairy Schemes (IDS) approach in Afghanistan and results from a field mission to Afghanistan, interviews with beneficiaries and key public and private stakeholders, combined with analysis of secondary data. Findings confirmed that the IDS approach has a sustainable positive impact on rural Afghan women and their families, both in terms of increased income availability and social empowerment. Therefore, further use of this approach, integrating gender dimensions, is encouraged in the design, implementation and evaluation of dairy interventions in Afghanistan and elsewhere.

About the authors

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Abbreviations and acronyms

AGS	Rural Infrastructure and Agro-Industries Division, FAO
AI	Artificial insemination
AREU	Afghanistan Research and Evaluation Unit
BLDU	Balkh Livestock Development Union
CDC	Community Development Council
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CTA	Chief Technical Advisor
DAIL	Department (provincial) of Agriculture, Irrigation and Livestock
DOWA	Department (provincial) of Ministry of Women's Affairs
ESP	Social Protection Division, FAO
EVAW	Elimination of Violence against Women
GDP	Gross domestic product
GPI	Gender Parity Index
HED	Home Economics Department, MAIL/DAIL
HLDU	Herat Livestock Development Union
IDS	Integrated Dairy Scheme(s)
INGO	International NGO
KaDU	Kabul Dairy Union
KhDU	Khatiz Dairy Union
KuDU	Kunduz Dairy Union
MAIL	Ministry of Agriculture, Irrigation and Livestock
MCC	Milk Collection Centre
MDGs	Millennium Development Goals
MOWA	Ministry of Women's Affairs
MRRD	Ministry of Reconstruction and Rural Development
NAPWA	National Action Plan for the Women of Afghanistan
NGO	Non-governmental Organization
NSP	National Solidarity Programme
SEAGA	Socio-economic and Gender Analysis
UHT	Ultra-high temperature (processing)
UN	United Nations

Notes: One jerib of land = 1/5 ha, five jerib = one ha. Approximate exchange rate at the time of analysis: US\$1 = Afs57 (afghanis).

Chapter 1

Introduction

1.1 BACKGROUND

Since 2005, FAO has developed and technically supported in five Afghan provinces Integrated Dairy Schemes (IDS), which use a value chain model to promote small-scale dairy industry development and marketing. In the years prior to launching IDS, FAO had implemented several projects related to livestock development,¹ and thus gained sound knowledge about the sector in different regions of the country. Thanks to this groundwork,² three IDS have already become autonomous and have been operating successfully since 2010, while two initiatives that are more recent are still technically supported by FAO. The IDS approach consists of targeted investments and support for key points in the dairy industry. These include:

- inputs and services, such as veterinary services, feed and fodder;
- local institutions – setting up primary and secondary level cooperatives;
- a dairy processing industry that drives sustainable development of the local industry.

The major output of IDS is profitable local dairy enterprises providing new jobs, income and food security.

A recent FAO evaluation (FAO, 2012b) highlighted the economic and social benefits accruing to participants, including women. It also recommended a short (two to three weeks) consultancy to assess benefits derived from women's participation (FAO [2012b], Recommendation 9, p. xv).

This report contributes to fulfilling that recommendation and represents one of the outputs from a documentary analysis and field study carried out during October to November 2013.

1.2 OBJECTIVES AND DELIVERABLES

The overall objective of the assignment was to provide guidance to ensure that the future work of IDS in Afghanistan will integrate gender³ aspects adequately in dairy value chain developments. It reviews and documents the main gender impacts of FAO's dairy industry programme in selected areas of Afghanistan; reviews the effects of the programme on women and men; and recommends how to sustain and further increase benefits in the future.

Specifically, the assignment focused on gender-specific impacts within smallholder dairy value chains supported under IDS, looking at the different ways in which women and men participate and the way in which gains are distributed. Specific objectives consisted of an analysis of the factors that led to the project's success in terms of increased gender equality and women's empowerment, and distilling lessons learned in the Afghan context that could inform the design, implementation and monitoring of other value chain projects in Afghanistan and elsewhere.

1.3 METHODOLOGY

The assignment was conducted under overall supervision by FAO headquarters, in consultation with the FAO Representation in Afghanistan and in collaboration with national government counterparts. An International Consultant and two National Consultants contributed to the main

¹ These include the Development of Livestock Production Activities in Selected Districts of Afghanistan programme and its successor, the Training of rural families and technical staff to extend proven animal health and livestock production packages (see MAIL/FAO, 2010, p. 3).

² IDS also benefited from the existence of a thorough study of the livestock sector in the country, the Afghanistan National Livestock Census 2002–2003 carried out by FAO (2008). This was important because it included a gender lens.

³ Gender is defined by FAO as “the relations between men and women, both perceptual and material. Gender is not determined biologically, as a result of sexual characteristics of either women or men, but is constructed socially. It is a central organizing principle of societies, and often governs the processes of production and reproduction, consumption and distribution” (FAO, 1997).

part of the work, with additional analysis and documentation provided by a second Senior International Consultant. The following activities were carried out: desk research;⁴ a three-week field visit to Afghanistan; analysis of data and information; presentations of preliminary results in Afghanistan and Rome; and report writing.

Analytical framework

The conceptual framework for the review was based on a combination of value chain and gender analysis.

The value chain analysis drew from material produced by the International Labour Organization (ILO)⁵ and UN Women (Farnworth, 2011) and considered three aspects of the IDS value chains.

- *Structure*, considering both functional links and support inputs and services.
- *Flow of values* along the chains and distribution of income among actors.
- *Governance*⁶ of the chains, i.e. the way that actors and institutions drive their operations.

The gender analysis drew heavily on the methodology described in the Socio-economic and Gender Analysis (SEAGA) handbook.⁷ This combines socio-economic and gender analysis in an approach that is essentially one of rapid appraisal, but carried out in a participatory manner.

The review first considered what the SEAGA methodology calls the “development context” of the IDS project – in other words, the economic, social and institutional context in which the project has been implemented. This is described in Chapter 2, based on information drawn from the literature and public databases and observations during the field visit.

Two aspects of gender dynamics were explored in the analysis of the IDS value chains and are described in Chapter 3.

- The *roles* played by women and men at each link in the chain, and in the governance of the chain, and the extent to which these reflect roles in wider society.

- The distribution of *benefits* within participating households and along the chain, and the effect of the project on income earning by women and men. Benefits were assessed qualitatively, based on previous evaluations (FAO [2012b], Recommendation 9, p. xv) and beneficiaries’ perceptions in interviews.

In addition, the review analysed gender issues at three levels, as recommended by SEAGA; findings are reported in Chapter 4.

- *Microlevel*, focusing on individuals, households and local communities.
- *Intermediate level*, focusing on institutions and services.
- *Macrolevel*, focusing on national policies and plans, the economy and social issues.

Fieldwork

Three weeks of fieldwork were carried out in Afghanistan, including visits to IDS in the cities of Kabul, Mazar-i Sharif, Kunduz and Herat. The fieldwork focused primarily on Herat, a project still under development, and where security permitted longer visits in the countryside, together with the three autonomous IDS in Kabul, Mazar-i Sharif and Kunduz, which have a longer history and from which valuable information pertaining to the effects of the projects on women and men could be obtained. As IDS Jalalabad is a newer project still in the first stages of development, it was not included in the mission.

Visits were made to key stakeholders, and group and individual meetings held with IDS beneficiaries. Visits to stakeholders included meetings and discussions with dairy union leaders, managers and beneficiaries, who are farmers based in adjoining districts. Visits to milk factories, feed mills and dairy shops selling IDS products were also carried out. Other key stakeholders encountered during the trip included national government representatives at MAIL and provincial representatives at DAIL; FAO representatives, including gender experts; representatives from other ministries; women members of district and provincial councils; and representatives from the Italian Directorate for Development Cooperation, which financed the Herat IDS.

Meeting women and men beneficiaries was of central interest to the mission, since the assignment focused mainly on qualitative approaches, capturing perceptions and experiences of the beneficiaries. The dairy unions and FAO project teams did their utmost to organize meetings despite various difficulties encountered. As can be seen in Table 1,

⁴ This consisted of an analytical review of project documents, existing data and reports and close consultations with FAO ESP and AGS Divisions. References are cited in the report.

⁵ ILO, 2009; Mayoux and Mackie, 2008.

⁶ Governance of a value chain is affected by the balance of power among the actors. For a discussion of value chain governance, see Kaplinsky and Morris, 2003. For a classification of value chains according to their governance, see Farnworth, 2011.

⁷ Described in FAO, 2001.

TABLE 1
Group meetings with IDS women and men beneficiaries

	On dairy union premises Women	In village Women	On dairy union premises Men	In village Men
Kabul Dairy Union	6			
Balkh Livestock Development Union		9		1
Kunduz Dairy Union	36			
Herat Livestock Development Union	17	34	7	1
SUBTOTAL	59	43	7	2
TOTAL 111	102		9	

the number of participants varied at each location. Only in two of the four provinces (Balkh and Herat), village meetings and visits to the houses, stables and collection centres of the IDS farmers were possible, because of security constraints. In Balkh, a group meeting with nine women was organized in the Pagmoni/Sherabad village, near Mazar-i Sharif. In Herat province, a group meeting with 36 women was organized in Dus Mohamad Bek, a village 40 km from the city of Herat. In Dus Mohamad Bek, it was possible to visit the Milk Collection Centre (MCC) (see map of Afghanistan in Annex 1).

In the other two provinces, Kabul and Kunduz, meetings were held on the union premises. In total, it was possible to organize formal meetings with 111 beneficiaries, 102 women and nine men, both adults and youth, as shown in Table 1.

In the meetings with women, it was particularly important to have women interpreters rather than men, as group dynamics change when men are present and, in some cases, it would have been inappropriate to have an unknown, unrelated male in the same space as women. It is also recognized that interpreters do not always convey neutrally uncontested meaning but filter, interpret and may, consciously or unconsciously, silence some of what they hear (Temple and Edwards, 2002). While in the Afghan context, it would have been extremely difficult to match for class or educa-

tional background, given the centrality of gender, the interpreters did match for gender.

Specifically for women and men beneficiaries of the Herat Livestock Development Union (HLDU), two tools were adopted:

- questionnaires focused on the impact of IDS on the five livelihood capitals of beneficiaries (physical, human, social, financial and economic) and on gender equality principles (access to assets, services and voice);
- a livelihood analysis tool from the SEAGA Field Handbook, the “Daily activity clock”.

In order to gather information directly from the beneficiaries, three groups of respondents completed questionnaires with the same content, as summarized in Table 2. Annex 5 gives the Herat questionnaire. A document summarizing change in ownership of cows and land before and after participation in IDS as indicated in the questionnaires can be found in Annex 2.

The field survey was carried out under severe time constraints. Consequently, interviewers could not be provided with sufficient basic training to conduct the survey. In addition, most of the women interviewed were illiterate, which lengthened the interview period, leaving less time for conducting interviews among a larger sample of beneficiaries. All but one of the men were literate. The 21 participants from Enjil and Guzerah

TABLE 2
Number of respondents to questionnaire in Herat province

Origin of respondents	Questionnaire applied	Women	Men
Enjil and Guzerah districts	See Annex 5	14	7
Karokh district ^a	See Annex 5	12	
TOTAL 33		26	7

^a Questionnaires 1 and 2 were completed on the premises of the dairy factory while questionnaire 3 was filled out by the National Consultant and the HLDU women trainers, which explains why only women were interviewed.

TABLE 3
Number of participants in daily activity clock exercise

Origin of participants	Women	Men
Enjil and Guzerah districts	14	7
TOTAL	21	

districts also completed the daily activity clock (Table 3), a summary of which indicates gender differences across daily activities (see Annex 3).

Because of strict security restrictions, limited time was spent on site and the team met relatively few women milk producers. With the exception of Herat, where it was possible to remain a few days on site, and have talks with more women producers and FAO project staff, the field visits to Kabul, Mazar-i Sharif and Kunduz did not allow much time to be spent with the women farmer producers or the union management. Furthermore, FAO has stopped supporting Kabul Dairy Union (KDU), Kunduz Dairy Union (KuDU) and Balkh Livestock Development Union (BLDU) since 2010, when the three IDS became autonomous, meaning the information available was more limited. Consequently, more detailed information was available at HLDU than at the three autonomous IDS. Moreover, an evaluation document, elaborated in early 2013 provided recent valuable insights into HLDU. Post-field mission research found that the German Federal Enterprise for International Cooperation (GIZ) provides limited support to BLDU, including capacity development for women milk producers, under their Sustainable Economic Development Programme (NaWi).

Data analysis

Analysis of information and data was carried out continuously throughout the assignment. The analytical process was inductive, meaning that conclusions were built up over time as information was gathered.

Material from the desk research provided background information on the development context and livelihoods and gender issues, and a preliminary mapping of value chains.

The fieldwork provided details on livelihoods impact and gender issues along the dairy value chains. Information obtained from each interview and field exercise was discussed with the stakeholders at the time and by the team between interviews. This had two functions: it added to the participatory nature of the work, and allowed findings and conclusions to be triangulated.

The overall analysis and summary were carried out partly in Afghanistan and partly at the home base after the mission.

1.4 REPORT STRUCTURE

The remainder of the report is divided into four main chapters, plus a checklist (Chapter 6), bibliography and annexes.

Chapter 2 presents the development context of the IDS project. It begins in Section 2.1 by describing food security and livelihoods in Afghanistan and the economic contribution of agriculture. Section 2.2 describes briefly the contribution of the livestock sector and the emerging dairy sector to food production and livelihoods. Section 2.3 summarizes gender policy in Afghanistan and discusses the role of women as economic actors and in the livestock sector. Section 2.4 provides an institutional context by summarizing the history of the cooperative movement. Section 2.5 describes the development of the IDS model.

Chapters 3 and 4 present an analysis of gender issues and the impact of the IDS project from two perspectives. Chapter 3 analyses gender issues along the value chain, while Chapter 4 takes a scale perspective and reviews impacts at micro-, intermediate and macrolevels.

Chapter 5 presents recommendations and conclusions from the review, while Chapter 6 consists of a checklist for designing gender-sensitive dairy value chains.

Chapter 2

The Afghan context and the IDS project

This chapter summarizes the development context in which the IDS value chains are operated. Using material drawn from a review of the literature and interviews with stakeholders, it describes briefly the human development and food security situation in Afghanistan, the role of agriculture and livestock in the country's economy and the livelihoods of poor people, and the gender issues that affect the livestock sector. It then introduces the IDS project and explains how the design of the project has been tailored to local conditions.

2.1 FOOD SECURITY AND LIVELIHOODS

In spite of significant progress and investment in many areas such as education, communications and security, Afghanistan continues to face acute challenges. In 2012, it ranked 175 out of 186 countries in the United Nations Development Programme (UNDP) Human Development Index (per capita income is US\$1 083). The country's poverty level continues to remain high, with 42 percent of the population living below the poverty line and the overall unemployment rate estimated at 46 percent. There has been no census in the last 30 years, but the size of the population is estimated at between 27 and 30 million.

According to the latest World Health Organization (WHO) data published in April 2011, life expectancy in Afghanistan is 59.6 overall, 58.6 for males and 60.8 for females, and show a high rate of under-five mortality (128 per 1 000 live births). The population is young with 46 percent under 18 years of age of whom 55 percent have access to primary education and 32 percent to secondary education. Only 57 percent of the population has access to safe water sources and 31 percent to sanitation (WHO, 2013). According to the United Nations Children's Fund (UNICEF), small-scale surveys conducted in drought-affected areas have confirmed the precarious nutritional situation, particularly in remote and drought-prone regions (UNICEF, 2012).

Prices of staple food items are going up, in response to droughts in the major food-growing countries and rising global prices, and as transportation on insecure roads becomes more dangerous and expensive. It is estimated that nearly 4.5 million people in urban and rural areas of Afghanistan face food insecurity, in some cases chronic. Continuing physical insecurity, the intensification of armed conflict, growing insecurity about the future of the country after the elections in 2014, and the withdrawal of foreign troops at the end of 2014 all place a physical and psychological toll on the people.

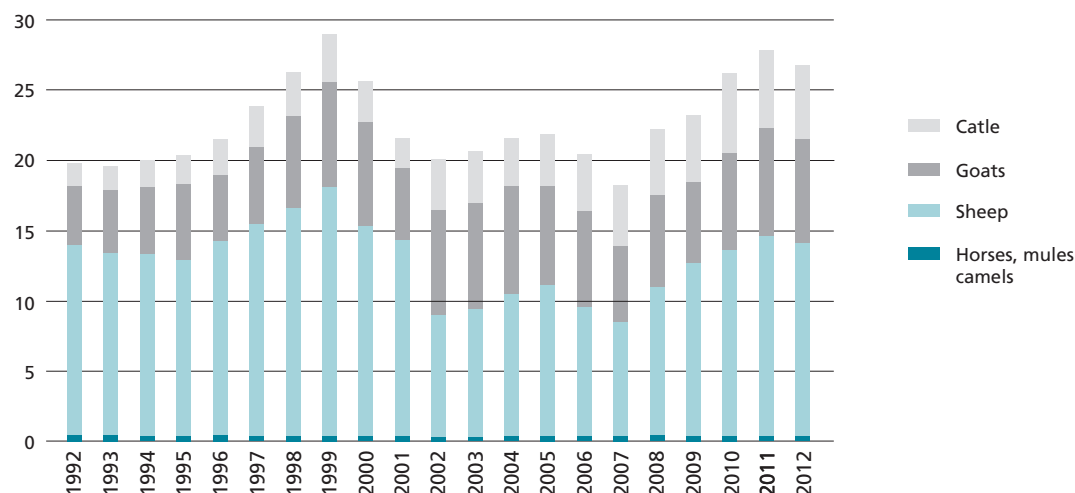
The population is largely rural – recent estimates put the rural population at about 77 percent, in spite of displacement to urban areas in search of income-generating activities, and the likelihood of returnees from the Islamic Republic of Iran and Pakistan remaining in the cities rather than returning to the insecurity of rural homes. Farms are mostly small and fragmented. Only 12 percent of land in Afghanistan is arable and 46 percent of this is under permanent pasture (Central Bureau of Statistics [2012], p. 138). Many rural families are poor and between a quarter and a third own no land (International Business Publications, USA, 2011).

Close to 77 percent of the population is engaged in agriculture-related activities (55 percent rely solely on agriculture) (op. cit., p. 22), compared with some 26 percent in services and 12.5 percent in industry. "Licit" agriculture (i.e. excluding the cultivation of opium poppies), mostly carried out by small-scale farmers, contributes approximately 50 percent to the gross domestic product (GDP) and is seen as a high priority for development.

2.2 THE LIVESTOCK SECTOR AND DAIRY DEVELOPMENT

The livestock sector contributes perhaps half of licit agriculture GDP in Afghanistan (Fitzherbert, 2006). Livestock keeping is important for home consumption of food and fibre as well as income generation. Over 85 percent of Afghan households

FIGURE 1
Selected livestock species in Afghanistan (million head), 1992–2014



Source: FAOSTAT, accessed April 2014.

own livestock, although numbers have fluctuated (Figure 1) because of decades of war and a four-year severe drought. The production and farm management system has hardly changed over time and many contemporary practices such as ploughing and threshing use traditional, centuries-old methods. Sheep and goats are the most numerous animals. Cattle are fewer in number than small ruminants but widely owned, with around 70 percent of settled farmers keeping cattle for milk and draught power.

Livestock kept by nomadic and transhumant households have traditionally been the main source of livestock products for the Afghan people, although imports of milk and meat from peri-urban dairy farms near Afghanistan's main cities have recently become increasingly important. Livestock ownership by sedentary farmers is restricted by limited access to land on which to grow feed (forage or crop residues), but peri-urban dairy farmers find it cost effective to purchase feed (Fitzherbert, 2006). Nutrition, low reproduction and veterinary health care have been identified as critical concerns for farmers. Afghanistan is a country prone to periodic drought and the availability of feed for animals varies greatly with the seasons. Information from the census shows that feed and forage production are the major bottlenecks for increasing livestock production. Hence, the need for projects that integrate crop production aimed at improving the feed situation and livestock development together with animal health programmes. Most cattle in Afghanistan are native breeds, with an overall average pre-

dicted milk yield of 3.22 kg/day. In some regions (such as Nangarhar and Balkh), large numbers of cross-breeds exist, although in 2007 the number of cross-bred cows overall was estimated at less than 10 percent. They vary in quality and appearance but a MAIL report noted that some had higher genetic potential⁸ for milk and fat production than many of the local breeds (Bonnier, 2007). Cross-breeds sell for US\$800–1 000 with female calves selling for US\$400. From the four provinces of the IDS focus, in 2003, Herat had the largest cattle population with approximately 186 000, followed by Kunduz with 158 000, Balkh with 75 000 and Kabul with 58 000. The latter also consumes milk from producers in two nearby provinces: Logar and Wardak.

The dairy sector is at an early stage of development. Most producers are small farmers scattered across villages with some larger ones concentrated in peri-urban markets. Imports from the Islamic Republic of Iran (especially in the western part of the country) and Pakistan account for a large part of the supply of dairy products and seem set to increase rapidly. Milk is imported mainly in the form of milk powder and the rest as ultra-high temperature (UHT) products. UHT products are more widely sold than fresh milk as they have a long shelf-life and are less dependent on refrigeration. They are twice as expensive as those produced locally with fresh milk from farms.

⁸ Pedigree estimated breeding value. See Wu, Shanks and Harris, 1989.

FAO/MAIL have conducted several dairy market surveys (Bonnier, 2007). One study carried out in Kabul indicates that yoghurt constitutes the largest share of sales at 40 percent, followed in decreasing order by butter (18 percent) and raw milk (17 percent). The remaining dairy sales are ghee, cheese and cream (Bonnier, 2007). The study further highlighted the fact that there are wide seasonal differences in consumption patterns: in summer, yoghurt sales increase by 125 percent from winter levels, while milk sales decrease by 40 percent, as do butter and cream sales. Informal information suggests that this pattern of demand is also found in other parts of the country.

2.3 GENDER

Afghanistan signed the UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1980 and ratified it in 2003. Nationally, there have been significant achievements for women's rights, including the 2003 National Solidarity Programme (NSP), increased political representation of women, the 2005 Afghanistan Millennium Development Goals (MDGs), the 2007 National Action Plan for Women of Afghanistan (NAPWA), the 2009 law on the Elimination of Violence against Women (EVAW), and the 2010 National Priority Programmes. There have also been significant improvements in infant and maternal mortality rates: the rate of children dying before age five has dropped from one in five to about one in ten while the lifetime risk of maternal mortality has dropped from one in 11 to one in 50. Access to education has risen and the number of women teachers in schools has increased.⁹

However, the Gender Inequality Index for Afghanistan is 0.712, ranking the country 147 out of 186, according to UNDP. The status of Afghan women is one of the lowest in the world. Gender-based violence remains endemic and the 2009 EVAW Law is under threat in Parliament. Although it is estimated that 85 percent of the population now have access to health care, maternal mortality is still among the highest in the world, in particular in rural areas such as Badakhshan. Across Afghanistan, maternal mortality is the single highest cause of death.

Women's political participation, although it has improved, remains low, especially at district and provincial levels and women are absent in most national decision-making bodies. Strong discouragement by religious conservatives and lack of support from male colleagues are reported to be contributory factors.

There is also a gender gap in enrolment at primary education levels and retention in secondary and tertiary levels. In the last ten years or so, there has been a substantial increase in the enrolment rate of girls in primary school – the Gender Parity Index (GPI) went from 0.44 to 0.76. Girls' enrolment in secondary school has also slightly increased, but remains lower – in the last ten years, GPI went from 0.21 to 0.55. Enrolment in tertiary education shows the widest gap in education access, with GPI being consistently below 0.30. Female literacy rates lag behind those of men; 87 percent of females over 15 are illiterate as compared with 61 percent of men. Literacy rates also vary sharply across provinces; in 18 of the 34 provinces of the country the literacy rate for women is less than 10 percent with 1 percent literacy rates in six provinces. Cumulatively, these gaps have a negative effect on women's well-being.

Against a background of high unemployment generally, the capacity of Afghan women to become economically active by engaging in monetized activities and income generation is severely constrained by sharply delineated gender roles that tend to confine women to domestic and subsistence activities. Obstacles to women's economic engagement in the wider economy include low levels of literacy, a lack of employment and income-generating opportunities and, an important factor, sociocultural norms that discourage women risking contact with men who are not family members. Some women do engage in income-generating activities, but these women must match social and cultural expectations.

Recent CEDAW recommendations specifically addressed the needs of rural women in recommending the Afghan Government to “elaborate a comprehensive development plan for rural areas with the full involvement of rural women in its elaboration and implementation” and “strengthen its efforts to address the needs of rural women and provide them with better access to health, education, clean water and sanitation services, fertile land and income-generating projects” (United Nations Committee on the Elimination of Discrimination against Women, 2013).

⁹ Between 2001 and 2009, the number of teachers in general education rose sevenfold, but only 31 percent were women, according to an IIEP/UNESCO report (Sigsgaard, 2011).

There is a scarcity of gender-disaggregated data in many sectors, especially labour and employment. Data from 2007/2008 indicate women's labour participation as 47 percent, with 95 percent of women in vulnerable employment and 78 percent in unpaid family work.¹⁰ Women's economic rights have been overlooked over the last ten years in favour of vocational training and microjobs, which have no specific market potential (AREU/UN Women [2013], p. 22). As noted in the Afghanistan Research and Evaluation Unit (AREU)/UN Women report, women's economic empowerment has not been prioritized in government policies and strategies.

In agriculture, including livestock keeping, women play an important role, but the nature of their participation is affected by a range of factors, including the region, community, ethnicity, age and class, and the number and age of other women in the household, as well as the presence of government and non-government development organizations encouraging women's participation. Women from better-off farming families tend to work more within the household, while women in sharecropping families tend to work alongside men on the land (AREU/UN Women [2013], pp. 24, 25). Women heads of household, widows, or those with a handicapped husband have more freedom to engage in income-generation activities as breadwinners of the family. Women rarely own land and, if they do, they tend not to sell or mortgage it since mainly men in the family deal with land-related matters. Women farmers have limited access to other resources and opportunities besides land, such as animals, equipment, credit and employment. As summarized by the AREU/UN Women report (AREU/UN Women [2013], p. 25), "there is lack of gendered equity in the availability and accessibility of opportunities; thus, women in agriculture and related activities generally remain at the micro-scale of production". Women have traditionally had major responsibilities in livestock management, including milk processing, and are entitled to earnings generated from farm animals such as poultry and cattle kept in the household. This revenue belongs to women and they are the ones who manage it (Centlivres and Centlivres-Demont, 1988, p. 290). Hence the conclusion that, in Afghanistan, "any development intended to involve women will

be effective only if it has a large component of livestock-related activities" (Tavva, Martini and Rizvi, 2013).

As part of the Livestock Census in 2002–2003, a detailed survey was conducted, entitled "Women Livestock Survey", in order to ascertain gender roles in livestock production. The distribution of work among women, men and children in caring for livestock, and the decision-making authority for specific tasks were assigned the highest importance in the survey. It concluded that, given the patterns revealed by the survey of labour distribution and decision-making within the family, gender considerations ought to be placed at the centre of development interventions.

The women respondents in the Livestock Census (FAO, 2008) identified the following labour distribution within the family in cattle management. Women are mostly responsible for milking cattle (84 percent), tending young cattle (82 percent), and feeding (70 percent) and watering animals (63 percent). Men's main responsibility is to treat cattle (75 percent), while children (50 percent) mainly graze cattle. Annex 4 shows work responsibilities in cattle management and decision-making for women, men and children. Men are the main decision-makers for cattle management when it comes to purchasing feed (70 percent), animals (66 percent), treating (65 percent) and selling cattle (62 percent), while women are the most important decision-makers when it comes to selling milk. It is worth pointing out that large variations exist among regions between women's and men's decision-making capacity in certain areas of cattle management. In Badakhshan, for instance, women mainly make the decisions on treating animals (87 percent), whereas in Balkh only 6 percent of women do so (FAO, 2008).

Field exercises carried out in Herat during this assignment found a similar pattern of roles and responsibilities to those reported in the Livestock Census. The survey participants explained that men, women and youth all participate in the care of livestock, but women are responsible for milking and milk sales (see the daily activity clock in Annex 3). There is a clear division of labour in cattle management, based on sex and age. Women are responsible for work at the homestead; they feed livestock, water and milk animals and take care of the stables. Herding animals is mainly the responsibility of children. Treating sick animals is a task performed mostly by men, with women taking a larger share of this work for small ruminants.

¹⁰ Ministry of Economy and the World Bank, quoted in AREU/UN WOMEN, 2013, p. 4. As the report's author notes, the figure of 47 percent is not an accurate reflection of women's labour.

The majority of respondents from the Livestock Census selected cattle as their preferred species for herd extension while cow milk production for sale was singled out as being the most important priority for livestock development. Women indicated lack of sufficient feed as being the most significant problem in cattle production.

The Government of Afghanistan recognizes the importance of increasing livestock production and development of the dairy sector, as milk and derived products constitute a major source of protein for many Afghans. Through MAIL, the Government has encouraged programmes that support both developments. In addition, it is making efforts to replace at least a proportion of dairy product imports by local production. However, it appears that taxation policy is still not conducive to supporting local investment in the development of the dairy industry, since import taxes for equipment in the dairy sector and other sectors are relatively high, compared with import taxes on processed products.

2.4 THE COOPERATIVE MOVEMENT IN AFGHANISTAN

The Government has been instrumental in creating a small number of cooperatives since 1961, supported by UNDP/FAO between 1968 and 1986. Few were created because cooperatives had formerly been used to impose land reform and agricultural planning, in contrast with the cooperatives' original guiding principle of voluntary associations (MAIL, 2011) and, as a result, the word "cooperative" had negative associations. FAO staff involved in setting up the first IDS recall the resistance encountered when farmers were mobilized to form cooperatives.

The 2008 Cooperative Act, subsequent 2010 Law and 2011 Amendment currently govern the Afghan cooperative sector. IDS and private sector partners have been successful in making some improvements to the 2010 law. However, a 2011 report says that the registration processes for cooperatives need to be "decentralized and made more user friendly" (MAIL, 2011). It is likely that the law will be revised again in the near future; Land O'Lakes (an international NGO) apparently employed a consultant to review the cooperative law in 2013.¹¹ At present, there are about 3 000 cooperatives in the country. A former Master Plan (2008–2013) set a target of 5 000 cooperatives, which has not been met.

The dairy cooperatives were the first registered cooperatives in Afghanistan. IDS appear to be the only cooperatives that have a large outreach and have proved to be sustainable and successful as enterprises at union level. The other cooperatives are quite small and few seem to be sustainable.

2.5 IDS: BACKGROUND

Rationale

The IDS project was established with German funding and FAO technical support in April 2005 and ran until March 2010. FAO already had experience of supporting livestock development in Afghanistan, including the German-funded project GCP/AFG/021/GER, "Development of Livestock Production Activities in Selected Districts of Afghanistan" and its successor GCP/AFG/032/GER, "Training of Rural Families and Technical Staff to Extend Proven Animal Health and Livestock Production Packages", completed in March 2005. By 2005, it was clear that there were several good reasons for taking smallholder dairy industry development in Afghanistan to the next level, using a market-oriented approach.

- Domestic milk production could not meet growing demands, and milk imports were increasing.
- Livestock development was among the stated priorities of the Government.
- Dairy cattle were popular with settled smallholder farmers, who were able to make a profit even on a small area of land.
- Milk production was a culturally acceptable activity for women and likely to improve household food security.

In particular, strong support was needed to connect smallholder dairy farmers with reliable markets. It was also clear that an integrated dairy project was required that would support farmers keeping cross-bred cattle. These animals are capable of higher yields and give milk of higher fat content than local breeds but they require more feed and more careful veterinary care.

Market and feasibility studies by FAO/MAIL informed the design of the project (Bonnier, 2007; Munankami and Sangin, 2011) and resulted in a programme combining several activities in an integrated way. These included training in improved livestock management; increased knowledge of veterinary services including artificial insemination (AI); use of improved seeds and techniques to produce fodder; enriched feed production in feed mills; milk collection and processing in milk factories; and marketing and reaching out to clients.

¹¹ For a reference to the study see <https://www.devex.com/en/jobs/facilitation-of-cooperative-law-and-revision-in-afghanistan-11049/>

TABLE 4
Selected results from Herat questionnaire

Number of cows	Owned by number of farmers before project	Owned by percentage of farmers before project	Owned by number of farmers at time of survey	Owned by percentage of farmers at time of survey
0	4	12	0	0
1	21	64	7	21
2	5	15	18	55
3	3	9	4	12
4	0	0	4	12
TOTAL	33	100	33	100

The aim of the IDS project is to improve food security in Afghanistan by supporting the national dairy sector through the development of IDS. The objectives are to increase saleable products from cattle production; develop processing and marketing structures for milk and dairy products; help create cooperative organizational structures for the management of IDS; and assist with the development of policies and strategies for the dairy sector.

The project focuses on low-income farmers who own between five and ten *jerib* of land (corresponding to 1 and 2 ha) and between one and five milking cows. Annex 2 gives information on cow and land ownership for the 33 respondents to a questionnaire conducted in Herat. Before joining the project, five respondents had no land, 24 owned land but had 2 ha or less, while the remaining four had between 2 and 5 ha. As Table 4 shows, farmers owned between zero and three cows before the project and between one and four at the time of the survey when 22 farmers owned more cows than before the project, nine had the same number and three had fewer. All this suggests that the project had some success in involving low-income farmers and that, while it had no impact on landownership, it increased cow ownership.

Although the project was not primarily designed with a gender focus, there was a strong awareness that development interventions aiming to improve livelihoods have to take into consideration gender roles¹² prevalent in a given country and economic sector. The project design took into account

lessons from the Women's Livestock Survey conducted as part of the Livestock Census (FAO, 2008), especially in relation to women's roles and responsibilities in the livestock sector. The survey showed that, according to local tradition in rural areas, women are producers and sellers of cow milk, while men are in charge of most activities in the subsequent links of the value chain, such as milk collection, transportation, processing and selling, while women play a limited role. This is also in line with Afghan traditions predominant in rural areas.

Project model

IDS are based on a value chain model, and all the dairy value chains developed by the project have a similar structure, with women as the main actors in the first link of the chain (milk production) and men playing the main role in subsequent links. The model used to develop dairy value chains was continuously adjusted and improved as experience was gained.

Currently, the IDS model is a local dairy value chain. In most cases, milk travels only a few kilometres from production in a rural area to consumption in the city. A few chains may be longer – in Herat province, one rural village supplies the main city 40 km away. Milk is transported in three-wheelers without refrigeration that are not adapted for long distances. However, the network of value chains has the potential to become national, given the multiplication of IDS projects in Afghanistan and the perceived advantages associated with this development.¹³

¹² Gender roles are the “social definition” of women and men. These roles vary among different societies and cultures, classes, ages and during different periods in history. Gender-specific roles and responsibilities are often conditioned by household structure, access to resources, specific impacts of the global economy and other locally relevant factors such as ecological conditions (FAO, 1997).

¹³ The possibility of linking IDS in a national dairy union was evoked during the mission, pointing to obvious economies of scale such as in marketing but also as a strengthening mechanism for local dairy unions. Some business exchanges seem already to be in place in marketing (packaging).

In brief, the IDS model consists of the following sequential activities (MAIL/FAO [2010], p. 6).

- Community engagement through *shuras*.¹⁴
- Fodder resources developed and improved to feed dairy cows.
- Farmers organized as milk producer groups.
- Farmers, their groups and local service providers trained in improved animal husbandry and animal health practices.
- Milk producer cooperatives set up at village and district levels and subsequently as regional dairy unions.
- Milk processing plants and feed mills established in collaboration with dairy unions and MAIL.
- Milk and dairy product shops set up in urban areas.
- Milk production and collection networks scaled up in line with market demand. Production focuses especially on fresh pasteurized milk and yoghurt, and includes smaller quantities of butter, ghee, cream, buttermilk, white cheese and quark.

Progress to date

Five IDS exist to date. The first three IDS are now autonomous and profitable enterprises.¹⁵ Between 2005 and 2010, FAO provided technical support to three dairy projects financed by the German, Italian and Afghan Governments. The German project covered Kabul, Mazar-i Sharif and Kunduz and aimed at farmers living in nearby villages (GCP/AFG/040/GER).¹⁶ The three locations are among the largest cities in the country, capitals of the provinces of Kabul, Balkh and Kunduz. The first dairy cooperatives under the IDS project were registered as follows: KaDU in 2006, KuDU and BL DU in 2007. In 2010, the projects became autonomous and operate profitably to this day. In a MAIL/FAO evaluation of IDS conducted in 2010, it was noted that women are the major beneficiaries. The evaluation also mentioned that “the approach developed by IDS emerged as a well-tailored model for community-based, shura-led development of dairy enterprises” and that it has capacity for scaling up and for being replicated.

¹⁴ Local councils created as part of NSPs throughout most of Afghanistan.

¹⁵ FAO (2012b) indicates that the average daily milk production has increased from about 600 litres/day to 1 300 litres/day. For 2013, it was expected that the daily rate would increase to 2 000 litres/day; for 2014, 2 500 litres/day were anticipated.

¹⁶ The total budget for the three projects from 2005 to 2010 was 2 923 934 euros.

IDS entry points to the local communities are women’s shuras, when they are in place.¹⁷

Two more recent IDS are still under development in Herat and Jalalabad.

IDS are well embedded in the country context, responding directly to main policy needs as, for example, the master plan of the Ministry of Agriculture, Animal Husbandry and Food from 2006, which outlines the main challenges to improve productivity in the livestock sector of Afghanistan. IDS have addressed most of the problems indicated in this master plan.¹⁸

Following the success of the three dairy union projects described above, the Governor of Herat requested the Italian Government to fund a similar project in his province, with technical support provided by FAO. In 2007, the fourth IDS was launched in Herat and HLDU was registered in 2008, with a budget of US\$2 million from the Italian Government (GCP/AFG/046/ITA) and a completion date scheduled for 2010. For several reasons, including security constraints, the construction of the milk factory and feed mill were delayed, which led to increased project costs. The project was extended to 2012 and the budget increased to US\$4 million. The Herat milk factory operated in 2014 at over 50 percent of its capacity and the project covered all its operating costs. It was estimated at the end of 2012 that it would have reached full capacity (5 000 tonnes milk/day) and full economic viability in 18 months, but to do so it would need US\$1.3 million additional funding.

IFAD and MAIL have contracted FAO to replicate the IDS project in Nangarhar with IFAD grant funding (US\$3.9 million). KhDU, the fifth IDS, was launched in 2009 in Jalalabad, Nangarhar (UTF/AFG/060/AFG) and was registered in 2012. It has 17 primary cooperatives, five district unions and 1 500 members, of which 97 are registered women union members.

The present report focuses on four IDS: three autonomous, located in Kabul, Kunduz and

¹⁷ Although the NSP objective was the systematic creation of women’s shuras, together with those for men, women’s shuras do not exist in all communities.

¹⁸ Fitzherbert, 2006. IDS addressed six of the eight main challenges highlighted by the master plan: (i) need to improve led veterinary service; (ii) poor livestock management, housing and nutrition; (iii) periodic lack of pastures or feed linked to frequent droughts and insufficient availability of agricultural by-products; (iv) lack of marketing facilities and information; (v) lack of clear and adapted extension messages or of a coherent extension organization; (vi) inadequate information on, or access to, improved or good genetic material for upgrading indigenous livestock.

Mazar-i Sharif and one more recently established, located in Herat. Their structure and membership are discussed in Section 3.2.

In various meetings, MAIL/DAIL representatives recognized that the dairy cooperatives set up to date with FAO's technical support are the most successful in the entire country. The success of IDS stems from the fact that the project is in line with local traditions, responds to the population's priority needs, has an integrated approach combining training with milk and feed production

and processing, and is structured as a value chain, which ensures income generation. Furthermore, IDS are now on a large scale – they have several thousand farmer beneficiaries who invest their incomes to improve their living conditions in a way that has positive outcomes for communities at large. Singling out IDS achievements, government officials from different provinces in Afghanistan have requested the Afghan Government and FAO to start dairy union projects in their regions.

Chapter 3

IDS: a dairy value chain analysed through a gender lens

3.1 VALUE CHAIN STRUCTURE AND GENDER ROLES

The value chain for a marketable product, in this case milk, is the sequence of production, transportation, processing, marketing and distribution up to the sale of the product to its consumers, together with the necessary support inputs and services.

Figure 2 shows the linear structure of the IDS value chain according to the functions performed. The structure is simple, consisting of five main functions. Support is required in the form of feed, animal health inputs, transport infrastructure and operations, as well as food safety expertise.

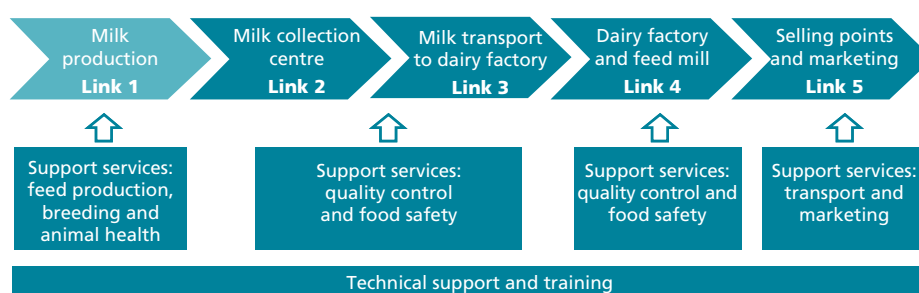
According to its form of governance, the IDS value chain can be defined as a “relational” chain, where transactions occur in the framework of established relations and where the central governance mechanism is the lead actor. IDS is a “producer-driven chain” where farmers, through their dairy union, constitute the lead actors.¹⁹ The

dairy unions run the value chain. They operate the milk factory and feed mill; organize milk collection and transportation systems; employ women trainers who train women milk producers; market the end products; employ people to run the factory and mill; and pay commission/milk money to people in other links of the chain. Gender roles within the IDS value chains can be summarized by the following.

- Women’s participation occurs mainly at link 1 as milk producers. Several activities support milk production, including cattle management and fodder production. Some of these activities take place inside the homestead, including watering, feeding and milking cattle and tending young cattle, and some take place outside, including grazing, treating and purchasing cattle, and purchasing feed. This is according to a clear division of labour among the members of the family, as illustrated in Annexes 3 and 4. While women are the main actors in milk production, they are dependent on certain activities reserved for men. Women also participate in link 2, where senior village women have the role of checking records on behalf of women milk producers. In link 4, a small number of women participate as employees (trainers, cooks and administrative assistants). Women play a part in the leadership of one union (Herat).

¹⁹ Farnworth (2011) identifies two types of value chain according to the form of governance: “market-driven chains”, where there are no long-term relations between the actors and where the market price is the central governance mechanism, and “relational chains”, where transactions occur in the framework of established relationships and where the central governance mechanism is the lead actor. Three types of relational chains have been identified: buyer-driven chains, producer-driven chains and intermediary-driven chains.

FIGURE 2
Structure of a typical IDS value chain



- Children participate in production by helping with care of dairy cattle, and also deliver milk to the MCCs at link 2 on their way to school.
- Men are active along all the links of the dairy value chain. They contribute to milk production, collect milk and transport it to the processing factory, work in different capacities at the factory, transport dairy products to the points of sale, deal with marketing and procurement, and run the unions almost exclusively.

The IDS project, using technical expertise supplied by FAO, provides farmers with training and services to improve livestock health, husbandry, breeding and nutrition. The latter are value chain supporting functions closely related to the dairy value chain. Training is also given to service providers (AI and animal health) and input providers (fodder and feeds) with the objective of improving local capacity for milk production, collection, processing and marketing.

Upon becoming progressively autonomous, the dairy unions take over the responsibility for training from FAO. This is important to ensure continuous skills upgrading of women and men participating in the dairy value chain. Technical inputs are provided either by MAIL/DAIL or private providers. MAIL/DAIL are partners in IDS and benefit directly from technical inputs and improved training in livestock management that FAO gives to MAIL/DAIL staff as part of the project.

3.2 GENDER DYNAMICS AND CONSTRAINTS

Unequal access to different types of capital (human, physical, social, economic, financial) between women and men leads men to dominate the value chain with high value-added work such as processing, which requires more sophisticated equipment and skills. Men take management and leadership roles in value chain activities whereas women, if employed, tend to work mostly as unskilled employees or in subaltern positions. Gender relations within IDS value chains reflect those in the rural culture of Afghanistan, where women are confined to domestic spaces, whereas men are active in the public space as entrepreneurs, workers, managers and leaders. These are roles for which women lack human capital (education and remunerated work experience) and social capital (support from other women and men, and access to networks).

The strong presence of women in milk production and their relatively weak presence elsewhere in the dairy value chains can be explained partly by the domestic location of dairy production. In addition, given their reproductive role within the home, rural women have less time than men for productive work. The daily activity clock in Annex 3 reveals the time women dedicate to child care and household chores – women and older girls spend between three and five hours a day in preparing meals, washing up, cleaning house and caring for children. In addition, sociocultural restrictions on women's mobility further undermine their ability to enter the public sphere as market participants or as employees. Women's lack of literacy is an additional barrier preventing them from moving up the value chain. However, despite being illiterate, many Afghan women have good numeracy skills – they are often charged with running the household budget and family supplies. Gender differences in access to financial services, training and networks constitute additional disempowering factors preventing women from fully participating in value chains. It is no surprise then, that in the IDS dairy value chain women's participation is limited to milk production. However, despite this limitation and clear room for improvement, women do benefit from their participation in the IDS value chain, as will be explained later in this report.

Membership of dairy unions also appears to be skewed in favour of men, although it is likely that some male members are proxies for women. Table 5 gives a summary of the membership of women and men in the dairy unions of Balkh, Herat, Kabul and Kunduz, based on data available at the time of the field mission and the women milk producers encountered.

The four dairy unions count 38 village cooperatives and 12 district unions.²⁰ They have in total 5 574 registered members, of which 1 540 or close to 28 percent are women. However, the gender distribution of membership varies greatly among the unions, with BLDU having women as 80 percent of recorded members and the other three unions only 2–3 percent.

BLDU's female membership has increased over time, from none in the early stages of IDS to 1 450 women today. When BLDU was created,

²⁰ As of November 2013.

TABLE 5
Dairy union structure and membership

Dairy unions	Primary cooperatives	District unions ^a or secondary cooperatives	Members		
			Male	Female	Total
Kabul Dairy Union	12	4	919	31 (3%)	950
Balkh Livestock Development Union ^b	6	2	350	1 450 (80%)	1 800
Kunduz Dairy Union	9	3	704	16 (2%)	720
Herat Livestock Development Union	11	3	2 061	43 (2%)	2 104
TOTAL	38	12	4 034	1 540 (27%)	5 574

Sources: information obtained during field mission; GIZ-NaWi Afghanistan report; post-mission information updates from FAO office in Kabul.

Note: HLDU is the only IDS that has women (six) in its governing body. None of the other three unions has women in its governing bodies.

^a Numbers of women and men IDS members were updated as of February 2014.

^b Five hundred women received training in 2013 and will have joined BLDU as registered members by February–March 2014, increasing the number of BLDU women members from 950 to 1 450, as of February 2014.

as in the other IDS, only male members joined as heads of households, in line with cultural norms prevailing especially in rural areas. The first 350 men who became members in the early stages of the dairy union were husbands of women milk producers, and are still members today. In time, their wives were trained by the union and registered as BLDU members. At a later stage, BLDU registered women members alone.

It was not possible during the present study to discover how this cultural change allowing women to become union members in large numbers occurred at BLDU but not at other dairy unions and to what extent it empowers women, given that BLDU does not yet have women as members of its governing body.

In IDS Herat, 43 women are members of the dairy union and six of them are members of the HLDU governing body, which has 25 members in total, giving them a share of almost 25 percent. This is an important innovating feature of HLDU, aimed at improving women's position within the dairy union and implicitly their leadership potential. It proves that the IDS model is continuously improving and, above all, is upgrading the status of women participants.

At the time of the field mission, one HLDU woman member of the governing body seemed particularly empowered by her role in the leadership of the union. Other women did not comment on their roles as union members.

The IDS project has few women employees – two women trainers for each of the three IDS in Kabul, Kunduz and Mazar-i Sharif and a few women employees working as cooks or in IDS administration.

3.3 DISTRIBUTION OF INCOME

At the beginning of the work leading to the formation of cooperatives and subsequently of dairy unions, many farmers were not very supportive about the idea of selling cow milk for money and resisted the option to become involved in the value chain. This resulted partly from a low demand for bought milk, since many Afghans consume milk they produce, and partly from the fact that local breeds of cows gave low milk yields (averaging 3.2 kg/day) (Bonnier, 2007), making selling milk a relatively unprofitable business. In the past, some women did sell cow milk, but this involved trips to the market and, on many occasions, the milk went sour, especially in summer time, and could not be sold, which meant a wasted trip and a heavy loss for the family. However, farmers soon grasped the benefits of becoming members of the dairy cooperative (such as being able to sell raw milk rather than needing to process it, as well as regular payments for milk), and women became enthusiastic about participation in IDS and the opportunity to sell their cow milk to the cooperative.

The current review focuses on the way that income from milk production, processing and sales is distributed between women and men and along the IDS value chains. It is not an evaluation of the financial or technical viability of IDS, only of their gender issues and impacts. As previously mentioned, three IDS enterprises have already reached autonomy, meaning that they are financially sustainable and are operating profitably without further external financial support. An FAO evaluation of HLDU in December 2012 (FAO, 2012b) determined that, although this newer IDS had not yet reached financial sustain-

ability (a higher volume of milk and continued investment in the dairy processing factory were required), it had clearly brought benefits to individual members by providing a reliable market and marketing system for milk with regular payments.

The interviews with value chain participants provided detailed information about the income generated at each link of the value chain, but little information about costs, and therefore the following discussion describes the distribution of gross income (before deducting costs).

Link 1. Milk production

As previously described, farmers participating in IDS benefit from increased milk yields because of feeding, health care and improved genetics. Most of this increased yield is sold to MCCs. Although there are additional costs associated with increased yields, additional income from these yields outweighs additional production costs. According to information from interviews and FAO Afghan staff, feed (fodder and concentrate feed) appears to cost about 56 percent of the value of milk produced.

Traditionally, Afghan women are mainly involved in milk production and are therefore predominantly engaged in the first link of the value chain. Equally important, according to this traditional practice, income generated from the sales of milk and milk products belongs to women. Women make a regular income from selling milk to MCCs, since they are paid weekly. They also benefit from saving time by selling raw milk rather than needing to process it, which can take a few hours of intensive labour each day. In addition, they can deliver their raw milk easily and rapidly to MCCs in a secure environment, thus avoiding the risk of having to sell it by the roadside or at the local bazaar.²¹ A previous project survey found that village women disposed of 87 percent of income from the sale of raw milk and that this money was primarily used for the benefit of their families on such things as food, clothes, health and education, and also on small perks for themselves (FAO, 2012b). The present mission confirmed the importance of IDS in providing increased income from milk to rural women,²² as described below.

During the meeting held in Pogmoni, Sherabad village, women farmers from BLDU indicated that their cows produce between 15 and 20 litres/milk per day. A woman who owns a cross-bred cow could potentially sell up to 15 litres of milk/day to MCCs, although 8–10 litres may be a more realistic average under current conditions, since most MCCs have no refrigeration and only take milk from the morning milking. The remainder is consumed at home, sold locally or processed and sold. At Afs19/litre of milk, the woman's income from 15 litres would be Afs1 995/week (US\$35) and Afs7 980/month (US\$140). This indicates the potential earnings for women milk producers participating in IDS projects who own cross-bred cows.

However, not all women participating in IDS achieved these prices or yields. In Herat, as in Balkh, women indicated having yields of between 15 to 20 litres/milk/day but received slightly lower prices: Afs17.5/litre/milk sold to MCCs, in line with market prices in the region. In Kunduz, women indicated that their cows yield an average 10 litres/milk/day in summer and 8–9 litres/milk/day in winter. They only received Afs13/litre of milk sold at MCCs, while the union sold it to cooperative shops for Afs20/ litre/milk.

The lowest yields seemed to be from the Kabul IDS, where six women milk producers from the Logar and Wardak provinces were interviewed. Four of them own one cow, and two own two cows each. They indicated that their cow yields were 5–8 litres/milk/day (still more than double the output from non-IDS producers). However, these women received the highest prices (in line with higher Kabul market prices). They sold the milk to MCCs for Afs21/litre if the fat content was 3 percent and for Afs24/litre if the fat content was in excess of 4 percent. This means a woman who owns one cow can sell 35–56 litres per week to MCCs and receive an average of Afs1 176 (US\$21) or Afs4 186 (US\$84) per month if the fat content is 3 percent.

Some women keep five litres of milk each day for family consumption and sell the remainder to MCCs. Kunduz women said that 15 of the 35 village women participating at the meeting had owned one cow before IDS and now many own two or three. Based on this information, Table 6 shows the amounts received in summer 2013 by a woman owning one milk cow, in each of the four IDS. These are indicative amounts, based on information from meetings with women milk producers.

²¹ These points were noted in FAO (2012b) and reconfirmed during the present assignment.

²² All women interviewed in this mission said that their incomes had increased since participating in IDS; they had increased their number of cows and improved the breeds through artificial insemination. Consequently, milk yields augmented, since "cows became fatter and produced more milk".

TABLE 6

Estimated women's income per cow owned, by location

Dairy union	Amount (Afs) received for sale of litre/ milk/day	Average milk sales/day/ cow	Amount (Afs) received/ day	Amount (Afs) received/ week/ member	Amount (US\$) received/ week/ member
Balkh Livestock Development Union	19.0	15	285	1 995	35
Herat Livestock Development Union	17.5	15	262	1 837	32
Kabul Dairy Union	21.0	8	168	1 176	21
Kunduz Dairy Union	13.0	10	130	910	16

Note: Afs57= US\$1

It must be stressed that the women milk producers encountered at the four IDS indicated that they receive all the money for the milk they sell at MCCs, and manage and spend it themselves. They said they were happy to have a ready market for their milk (“this is our chance”) and wished that the IDS project might continue and expand.

An additional benefit to women is that well-fed cattle produce more dung, which is used as fertilizer for their food crops and, most important, as a replacement for firewood, reducing the pressure on wood consumption. The latter has proved to be a major help for women, as it saves them time when they need to walk a long way (hours in many cases) to fetch wood, which can also involve additional security risks. Dry dung can be a source of revenue; some women sell it for about Afs3/kg.

It is widely reported around the world that increasing women's income is beneficial for the nutrition, health and education of children (FAO [2011], p. 9) and therefore for the family as a whole. Afghan women are no exception, and could increase household food security and well-being if they had access to sizeable earnings from dairy farming. The questionnaire responses show that with the money earned from selling milk, women buy schoolbooks, clothes, soap and food for the family, animal feed and medical items. In addition, they repaired or built new homes, bought carpets and mattresses, blankets, dishes and glass windows. Access to cash means that some now use gas for cooking instead of wood and sell surplus dried manure.

Afghan society is predominantly patrilocal, which means that girls, once married, live in their husbands' homes together with their in-laws and the rest of their husbands' family. The most senior woman in the household is the grandmother (modar-e-kalan, in Afghan Dari). Depending upon the number of women in the household, their age and other factors, the women responsible for milk production and implicitly entitled to earnings from selling cow milk can be young or old. In Kabul,

Herat and Mazar-i Sharif, women encountered on this mission were from a range of age groups but, in Jalalabad, about two-thirds of women milk producers are apparently older²³ while in Kunduz, 34 of the 35 women encountered were older women, aged 55 to over 70. They indicated that they milk the cows and receive the money from the sale of milk, while their daughters-in-law take on other work, such as cooking, cleaning the house and the stable, and washing clothes. The younger women tend to be literate and the older ones illiterate. From a development viewpoint, it is important to include young women milk producers in IDS. This is because in general younger women need more empowerment than older ones and, once empowered, the IDS development inputs they receive are likely to generate stronger socio-economic and gender benefits for themselves and their families, than those of older women.

Finally, it is important to note that there are wide differences in the profiles of women IDS milk producers from one region to another. In addition to age, there are cultural differences between ethnic groups, which can be significant since some groups tend to impose more restrictions on women than others.²⁴

Link 2. Milk collection centre

MCCs have been set up by IDS in each village where a farmer cooperative has been established. Milk is delivered in the morning, usually by children on their way to school. In some cases, older women who are in charge of the cows and entitled to the “milk money” deliver the milk themselves. MCCs do not collect evening milk, as this could go sour overnight.

²³ As indicated by the IDS Jalalabad woman trainer who participated as national consultant at the meetings in Kunduz, Kabul and Mazar-i Sharif.

²⁴ Wide differences between ethnic groups sometimes exist in Afghanistan but, throughout the mission, informants avoided speaking about ethnicity, as it was not felt to be in line with the government's policy of promoting national unity.

Women cannot earn income from working at MCCs, which are operated by men. However, women do benefit from the existence of MCCs, which provide an accessible, reliable and safe place to sell raw milk. Surplus milk is brought daily to MCCs and women receive the money for the milk sold on a weekly basis all year round.

Milk quantities collected vary according to season. In spring and summer, more milk can be collected than in winter. However, farmers everywhere would like to be able to sell milk all year round and the dairy factories are also interested in meeting market demand throughout the year. With higher milk yields resulting from improved feeding and genetics, surplus milk is available at both morning and evening milking. Nevertheless, IDS have collected only the morning milk up to now since the loss of quality would be too high if evening milk were kept overnight without proper cooling. Once MCCs are equipped with cooling systems and storage equipment, as planned, evening milk will also be collected. At present, when market demand is high, IDS collect additional milk from village people who are not members of the cooperative, if they can provide milk that meets the established quality standards.

Male milk collectors paid on commission undertake milk collection at MCCs. They are village farmers and members of the dairy union; the income they earn as milk collectors supplements their earnings from farming. A milk collector receives Af1/litre of milk collected. He tests the milk to ensure that it is consistent with the set norms and records the quantity of milk received from each female milk producer, both in her personal book and in the MCC registry. Milk quantity and fat content are the basic parameters for milk payment. Simple quality testing is carried out at MCCs with the purpose of either accepting or rejecting the milk. The tests (organoleptic, alcohol and/or density)²⁵ have no influence on price (Bonnier, 2007), whereas fat content does, at least at the Kabul IDS. The dairy union creates MCCs and supplies them with the necessary equipment for testing. IDS provide opportunities for income generation throughout the value chain. In some cases, such as in Box 1, a milk collector at BLDU was a former combatant before becoming an IDS member and endorsing this role, thus making the transition to civil life.

BOX 1

A milk collector, Abdul-Karim* (54), BLDU

In Pogmoni, Sherabad village, a few kilometres away from Mazar-i Sharif, capital of Balkh province, Abdul-Karim is a milk collector. A father of eight children, he has prospered economically since he became a member of BLDU charged with milk collection. Not only is he a successful farmer and cattle breeder but he has also opened a grocery store in Pogmoni.

* The names of the people cited in this study have been changed to protect their identity.

IDS have agreements with 45 milk collectors: 14 in Kabul, ten in Kunduz, ten in Mazar-i Sharif and 11 in Herat.²⁶

Link 3. Milk transport to the dairy factory

The main participants at this link are drivers (all male) with their own vehicles (three-wheelers). They transport the milk collected at MCCs to the dairy factory each morning and are paid on commission: Afs1 for each litre of milk transported from BLDU and Afs2 at other IDS. The drivers cover the cost of fuel and maintenance for their vehicles themselves. IDS have agreements with 13 drivers (two in Kabul, three in Kunduz, three in Herat and five in Mazar-i Sharif).

Link 4. Dairy processing factory

Each IDS has its own dairy factory and feed mill (which will be addressed separately as one of two supporting functions in the dairy milk chain). The processing capacity of each IDS factory is indicated in Table 7: 5 tonnes/milk/day for all IDS with the exception of KuDU, which has 2 tonnes/day capacity. KuDU needs funding to expand its capacity.²⁷ All IDS operate at close to their maximum capacity with the exception of HLDU, which is still under development and currently processes milk at 60 percent of capacity. In total, the four IDS process 13.9 tonnes/day at 82 percent of their total processing capacity.

²⁵ FAO provides a guide to milk tests in the *Milk Processing Guide Series*, Vol. 2 (FAO, undated).

²⁶ Information provided by FAO Afghanistan project staff, November 2013.

²⁷ KuDU has developed a water bottling business to complement its revenues and is starting a dry-fruit processing operation.

TABLE 7

Dairy union plant capacity and milk volume processed

	Dairy processing plant	
	Capacity (tonnes/day)	Milk volume processed (tonnes/day)
Kabul Dairy Union	5	4.6
Balkh Livestock Development Union	5	4.5
Kunduz Dairy Union	2	1.8
Herat Livestock Development Union	5	3.0
TOTAL	17	13.9

TABLE 8

People working on commission for dairy unions and staff employed

	Milk collectors	Milk drivers	Dairy product sellers	Staff employed	
	(men)	(men)	(men)	(men)	(women)
Kabul Dairy Union	14	2	22	30	3
Balkh Livestock Development Union	10	5	60	33	2
Kunduz Dairy Union	10	3	48	25	3
Herat Livestock Development Union	11	3	27	13	0
TOTAL 324	45	13	157	101	8

A small number of women (from zero to three per dairy union) are employed at the factories as trainers, cooks and administrative assistants, as shown in Table 8. All employees operating the milk processing and equipment are men, as are the managers of the factories. If the factory makes a profit, this accrues to the union and is used for the benefit of its members.

Table 8 shows the people working on commission and staff employed at the dairy unions. As HLDU continues its expansion, these numbers are likely to grow, provided HLDU can find the financing it still needs to attain sustainability. The dairy unions are important employers, a major achievement at least for men in Afghanistan, a country where formal employment is scarce and most Afghans are active in the informal sector. IDS employ 109 off-farm staff in total, overwhelmingly male (101). Each of the three autonomous dairy unions employs two women trainers; in addition, KaDU has a woman cook and KuDU recently hired a woman as an administrative assistant. In total, there are eight women employees, a rather modest achievement. Measures aimed at increasing women's employment in IDS are presented in Chapter 5. As mentioned previously, IDS also provide on-farm income-generating activities for 45 milk collectors and 13 drivers. In addition, the dairy unions provide a source of revenue for 157 shopkeepers who sell dairy products in shops,

all paid on commission. This brings the number of people earning revenue from IDS through employment or on commission to 324, of whom eight are women.²⁸

The IDS project does not have information on the exact number of women milk producers supplying its processing factories, whether linked through some form of membership to the cooperatives or not. It could be inferred that several thousand women milk producers and their families benefit from IDS.²⁹

In addition to union members, dairy processing factories buy milk from non-union member families, which increase the number of IDS beneficiaries, including women. It was not possible to obtain information on their numbers.

The factories are owned and managed by the dairy unions, which are cooperative institutions. Presumably, all union members hold a share in the assets of the union, and could realize a dividend if the factory makes a profit above what is needed for maintenance and reinvestment. However, these points were not discussed during the present review.

²⁸ Since HDU is still under development, the two women trainers working there are employed by the FAO team, which is technically supporting HDU.

²⁹ A quick estimate: 1 540 women registered as female union members + some percentage of the 4 034 registered male union members + women not linked to IDS, who occasionally supply their cow milk to the unions.

Link 5. Selling points and marketing

The IDS union sells wholesale pasteurized milk and dairy products on commission, mainly to milk shopkeepers and other vendors. Milk shops are often managed by male family members of shopkeepers, as was the case in Herat and Mazar-i Sharif. These dairy shops were “walk-in” types. In Kabul, IDS also sell through “window shops” where customers purchase the products through a window. Both types of shops were equipped with refrigerated dairy cabinets supplied by the dairy unions. Dairy shops are equipped with large boards listing the dairy products available for sale and their prices.

Some shopkeepers rent their shops. BLDU’s products are delivered to 50 retail shops and ten supermarkets around Mazar city. Box 2 describes the functioning of a retail shop and Table 9 shows sales information provided by the shopkeeper.

The four IDS operate with 157 shopkeepers: 22 in Kabul, 48 in Kunduz, 60 in Mazar-i Sharif and 27 in Herat. In the near future, IDS plan to develop

a unique packaging, with the same logo across the five IDS, in order to create a national brand image. HLDU has built a “corporate” identity, thanks to FAO’s persistent proactive marketing efforts, and is ahead of the other IDS. It sells its dairy products mainly through 27 dairy shops (over 60 percent of sales) and 15 wedding halls (13 percent). The rest is split among 12 restaurants, five kitchens (home delivery), two ice-cream shops and direct sales (9 percent).

Up to now, the operation of milk shops has been the preserve of men; traditionally women do not operate in the public domain of selling in shops and bazaars. There are some exceptions, such as in Bamyan, where women have started operating a small number of shops over the last few years. Women’s bazaars have been recently created, mainly inside women’s gardens, such as in Kabul and Mazar-i Sharif, and cater only to women. In Herat, several boutiques operated by women and selling only to women clients are grouped in one building. These may offer potential in the future for women to participate more fully in this link of the dairy value chain, and to gain direct access to income, but the present review found no examples of milk shops owned or managed by women.

Marketing activities are conducted by the dairy unions to promote sales of pasteurized milk and dairy products that belong to this link. All three autonomous IDS projects employ (male) marketing managers. In Herat, where competition in the dairy sector (from the Islamic Republic of Iran) is extremely steep, marketing became an important activity. HLDU, still in the development phase, relies upon FAO for its marketing. As indicated in the FAO evaluation report of December 2012, HLDU suffered an initial marketing shock when agents of imported Iranian dairy products decreased their prices to an extent that nearly killed the market for HLDU products (FAO [2012b], p. xi). A dedicated FAO project marketing manager worked in Herat over the last two years to support HLDU’s marketing efforts. At the time of the mission, several billboards promoting HLDU and its dairy products could be seen in

BOX 2

A shopkeeper, Amin (45),* and his dairy shop in Mazar-i Sharif

Amin rents his dairy shop in Mazar-i Sharif, Balkh. The shop is painted blue, and so are the large signs promoting various dairy products, the brand image of IDS. He buys pasteurized milk and other dairy products on commission from BDU on a daily basis, as shown in Table 9. BDU makes daily deliveries with its refrigerated truck to supply the shop. Based on information provided by Amin, he has sales of US\$34/week and US\$134/month. Amin has six children; his son Maher sells in the shop every day, and in his spare time he studies economy and computer science at the local university.

* The names of the people cited in this study have been changed to protect their identity.

TABLE 9
Dairy shop sales (Afs)

	Cost/kg	Selling price	Profit	Average kg/litres sold/day	Difference between selling price and cost
Paneer (cheese) (kg)	220.00	240.00	8%	1	20.00
Most (yoghurt) (packs of 400 g)	55.00	62.50	12%	8	60.00
Milk (pack of 500 ml)	36.00	40.00	10%	40	160.00
TOTAL sales profit/day					240.00

TABLE 10

Value chain links 1 to 5: indicative figures for value added at each link^a

		Afs/litre of milk (value added)	Litres of milk/week	Gross income/week	
				Afs	US\$ (a)
Link 1	Received by a milk producer from MCC for 15 litres milk delivered daily (from one improved breed cow)	19	105 (from one cow)	1 995	35
Link 2	Milk collector at MCC receives a commission of Af1/ litre milk from BLDU for 179 litres milk collected ^b	1	1 253 (179 per day)	1 253	22
Link 3	Driver receives commission of Afs1/ litre milk ^c from BLDU for 179 litres milk transported from MCC to the dairy factory	1	1 253 (179 per day)	1 253	22
Link 4	BLDU pays Afs21/litre milk to actors in links 1, 2, 3 and receives Afs30/litre milk (bulk) from dairy product sellers, i.e. a margin of Afs9/litre milk (b)	9	Not estimated – varies with function performed		
Link 5	Dairy product seller receives a commission from BLDU of Afs5/litre milk (bulk) sold (c)	5	280 (40 per day)	1 400	25

Notes: (a) US\$1 = Afs57.1 (OANDA foreign exchange company, 06 May 2014); (b) MCC milk collectors are also sometimes the drivers of the three-wheelers used to transport milk from village MCCs to local factories; (c) this amount shows only the seller's income on milk sold. The total income from dairy produce sales can be much higher, as described in Box 2 on page 20.

^a Table 10 presents indicative figures for value added at each link of the dairy value chain. It does not enable a financial analysis to calculate the net income to be carried out.

^b BLDU counts on 19 MCCs and collects daily on average 3 400 litres milk (most recent data available 2012), which implies that on average each MCC collects 179 litres milk/day. Milk collectors are paid a commission of Afs1/litre of milk collected plus Afs1/litre of milk transportation cost from MCC to the dairy factory. Retail price for bulk pasteurized milk is Afs35 /litre.

^c The most recent information on BLDU, available from January 2014, was used in Table 10 to ensure the accuracy of calculations, whereas the other tables use information provided by FAO Afghanistan staff covering the four IDS, November 2013. Recent information was available only on BLDU, making it impossible to update the other tables.

many parts of the city. Radio campaigns had also been conducted with good results, increasing the population's awareness about HLDU dairy products. The campaigns explained that HLDU dairy products have a higher quality than the imported ones and in addition are fresh and free of additives, and they encouraged people to buy local products.

Value added per litre of milk throughout the value chain

Using BLDU as an example, Table 10 presents the different actors at links 1 to 5 and the revenues generated by their activities. One column shows the value added per litre of milk and the other shows the remaining weekly calculations of the indicated volumes of milk sold.

As shown in Table 10, the IDS milk value chain appears to enable women milk producers (link 1) to earn a significant income (The Rich-

est, 2013)³⁰ from milk production, compared with the other links. Milk production is labour intensive but offers good remuneration per litre. In other value chains, Afghan women tend to earn less income, being producers at the bottom of the chain. (In the carpet industry, for instance, most value added is earned at the end of the wholesale and retail chain.) However, actual earnings depend on the volume of milk that passes through an actor's hands, the income gained and the costs incurred. Based on the figures from Balkh, a woman with one cow who is able to sell most of the milk produced would make a gross income of US\$35 per week. By comparison, a man who acts as a milk collector

³⁰ List of minimum wages by country (2014), available at http://en.wikipedia.org/wiki/List_of_minimum_wages_by_country/ Considering that the minimum wage in Afghanistan for government workers in 2013 was Afs5 000 per month, which corresponds to US\$22.80 per week, the average salary of women involved in IDS reaching up to US\$35.00 per week is significant. In addition, an average Afghan woman has very limited possibilities to earn a regular income. This underlines the importance of IDS and the income opportunities it provides for women.

FIGURE 3
Value added realized at each link per litre of milk



TABLE 11
Dairy union animal feed mill capacity

	Capacity (tonnes/day)
Kabul Dairy Union	20
Balkh Livestock Development Union	20
Kunduz Dairy Union	20
Herat Livestock Development Union	25
TOTAL	85

and driver might earn a gross income of US\$44 per week. A (usually male) dairy product seller might earn US\$35 on commission alone, and has a much higher income when all sales of dairy products are considered.

Throughout the value chain there is potential for women to “migrate” beyond link 1. This is discussed in Chapter 5.

Value chain supporting functions: fodder and feed production

An important factor influencing the capacity of IDS participants to increase their income from dairy production is the quality and quantity of animal nutrition, which directly affects milk yield and quality. Dairy cows³¹ require enriched feed and quality fodder in order to yield the volumes and quality of milk desired (Figure 3).

To provide concentrate feed, each dairy union has built a feed mill. Women do not work in the feed mills but benefit from the availability of the feed. The mills are highly profitable and do not require expensive or sophisticated equipment. Production can vary with market demand, which increases as farmers learn the benefits of feeding cattle with different types of feed at different stages of their growth and reproductive cycle.

³¹ All dairy cows, whether traditional or cross-bred, need to be fed adequately to produce to their genetic potential. Several studies have shown that traditional breeds can yield well when selective breeding from the best traditional bulls is combined with adequate feed. Potential yield is higher than with cross-breeds, but animal health costs tend to be lower, and the maintenance cost of feed may also be lower (smaller animals).

Women extension agents (village leaders trained as part of IDS) who train women farmers to improve dairy management also earn commissions on sales of feed concentrate and forage seed. Improved forage production and on-farm feed processing reduce the costs of purchased feed.

As shown in Table 11, IDS feed mills have a capacity of 20 tonnes/day at the three autonomous IDS and 25 tonnes/day in Herat. They produce high-quality concentrates enriched with minerals, as documented in the FAO evaluation report (2012b). In HLDU, concentrates produced at the feed mill from locally sourced materials are sold to both union member and non-union member farmers. The HLDU feed mill had built up a reserve of over Afs5.6 million (US\$112 000) by December 2012 (FAO [2012b], p. xi). HLDU, like the other dairy unions, sells concentrates to union members at a preferential price.

IDS calculate feed costs to reach on average Afs10.20 /litre milk,³² as indicated in Table 12. Only a small amount of feed (7 percent) needs to be purchased from the feed mill since most is produced by farmers. For example, the cost of purchased feed for BLDU milk producers represents 56 percent of the income received from sales of milk (Afs19/litre), seemingly a low percentage by industry standards.³³

During drought years (such as 2011), milk producers pay higher costs for concentrate feed than in other years.

Value chain supporting functions: training and extension services

Women and men cooperative members are trained under IDS. In addition, IDS train non-dairy union members (women and men) who occasionally supply milk to the dairy unions. Extension agents from the cooperatives at the three autonomous IDS, and from the FAO project at HLDU, train groups of women farmers in improved cattle management and milking practices. They choose

³² Data from FAO Afghanistan project, November 2013.

³³ As indicated by FAO Afghanistan project representatives.

TABLE 12
IDS average feed cost/litre of milk

	Afs	Comments
Forage	0.90	
Straw	4.08	Mainly grown on farm or collected by farmers
Hay	4.50	
Concentrated feed	0.72	Purchased from dairy union
TOTAL	10.20	

a leader from each group for additional training. The leader provides follow-up training for the other women in her group and also earns commissions on sales of feed concentrates.

Women and men are trained separately, according to Afghan cultural norms and in line with gender roles and responsibilities in the livestock sector. At HLDU, a project still under development, women are trained by women trainers from FAO and men by male technicians whereas, upon becoming autonomous, dairy unions hire their own trainers, including women (two per IDS), as shown in Table 8.

Training is the “first” entry point into the community for IDS. Therefore, it is important to respect traditional gender roles and responsibilities in training approaches so that the project is accepted by the community. As has been indicated in other parts of this report, training facilitates major gender change since it makes it possible for women to move around the village to participate in training sessions given in other women’s houses. In time, families even allow women to participate in exchange visits to other provinces. These are cultural challenges for Afghan rural societies where women are normally confined to the privacy of their homes. The mere fact that women are able to be trained may constitute a gender breakthrough in some Afghan communities. Time plays its part in allowing communities to grow accustomed to “new ways”, provided they perceive and accept them as serving their interests. Other examples of gender breakthroughs are, for instance, the increased acceptance of women as members of the unions and as participants in union leadership. For all these reasons, IDS are platforms for social (including gender) change. The tension between recognizing the importance of working within traditional roles and the need to challenge these to bring about positive changes for women are addressed in more detail in the recommendations.

With help from FAO, MAIL has created extension services dedicated to farmers involved in the dairy unions to continue supplying technical ser-

vices previously offered by FAO, such as veterinary services, improved livestock husbandry and AI. Special extension units for women were created in different regions including those where the dairy unions operate. MAIL/DAIL’s Home Economics Department (HED), employs 24 women working in 12 provinces of the country,³⁴ two per province. Some training topics are common to both women and men, such as veterinary, cross-breeding and AI techniques, while others are gender specific. Men receive training in fodder cultivation and improved feed, while women learn about animal care and nutrition, and stable management. Other HED training is in vegetable gardening and marketing, nutrition and breastfeeding. HED women trainers sometimes work jointly with IDS women trainers, as at HLDU.

With technical support from FAO, improved breeds and feeding procedures were set in place, allowing yields to increase to higher levels (10 litres/day to 20 and 25 litres/day), making milk selling a viable business operation. AI is available for Afs300 (US\$6) from the Afghan Government (MAIL/DAIL) and private sector service providers. Demand for these inputs and services is driven by strong market demand for dairy products.

³⁴ Given security constraints, it is probable that not all 34 provinces of the country are covered.

Chapter 4

IDS: a gender perspective at micro-, intermediate and macrolevels

IDS are valuable economic and social initiatives: they address some of the most pressing development needs of Afghan society, which are also goals of the Afghan Government. These include making agriculture more productive and sustainable; reducing rural poverty; enabling efficient agricultural and food systems; and improving the social and economic status of women. In so doing, IDS contribute to strengthening livestock production, raising on- and off-farm employment and income generation and developing local capacity for self-governance.

The success of the model lies in the fact that it addresses needs at three levels.

- At the microlevel, it enables women and men in rural households to participate and benefit without departing too far from local traditions. This makes it possible for the model to work in rural areas where traditions are strong.
- At the intermediate level, the model addresses the institutions needed for effective operation of dairy value chains by providing cooperative members, relatively quickly, with the expertise they need to run dairy unions autonomously and profitably, as demonstrated by the accomplishments of BLDU, KDU and KuDU. The local population involved in IDS has achieved both ownership of the dairy unions and knowledge of how to carry out by themselves the work initiated by FAO in tandem with MAIL/DAIL. An important feature of IDS is the implicit social and economic empowerment of women farmers with its cascading effect on the increased well-being of the entire family and community.
- At the macrolevel, the dairy value chains support rural livelihoods and food security, both priority issues for Afghanistan. The model reinforces national gender goals expressed by the various programmes and government acts previously mentioned in Section 2.3.

Gender issues at all three levels are explored in more detail below.

Although the achievements of IDS have been positive in many ways, women participating in dairy unions and value chains still have a long way to go to improve their status. From a gender perspective, IDS can be seen as a first stepping-stone for rural women to start consolidating a better place for themselves in the strongly patriarchal Afghan society, especially in rural areas. Women farmers need to draw increased benefits from their participation in the dairy value chains set up under IDS. Some unions, such as BLDU, are able to support women more rapidly than other unions. BLDU has registered large numbers of women as cooperative members and is now preparing to include women in the leadership of the union. This is explained in part by more relaxed cultural norms prevailing in Balkh and among some of its members that are more conducive to women's integration in the union as members and leaders than in other regions. This is more difficult to do in KDU where women milk producers are mostly of different ethnic groups and located in Logar and Wardak. The same is true for KuDU, located in Kunduz.

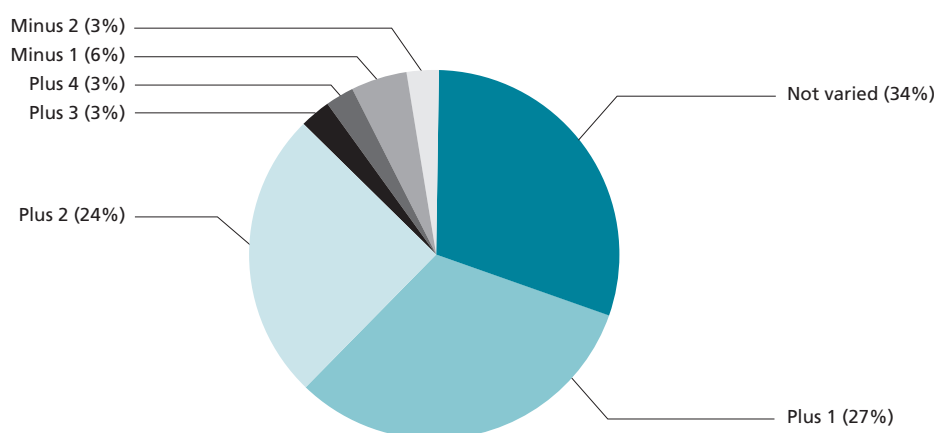
4.1 MICROLEVEL: INDIVIDUALS, HOUSEHOLDS AND COMMUNITIES

Economic empowerment

Women's economic empowerment can be defined as "the ability of women to bring about positive changes in their lives and societies as a result of their participation in economic activities".³⁵ This definition is in line with the positive changes noticed in exchanges with women IDS beneficiaries. In a country where some of the most important constraints that women face are lack of job opportunities, lack of experience, low pay, low educational attainment, and an unsupportive

³⁵ AREU/UN WOMEN, 2013, citing a 2012 *UN Guidance Note on Women's Economic Empowerment*.

FIGURE 4

Variation in the number of milking cows owned by women since IDS

Source: interviews with women milk producers carried out as part of this consultancy.

family environment” (Samuel Hall Consulting, 2011). IDS provide women milk producers with a weekly income throughout the year, which they manage themselves. This is a major achievement, even more so given that the women milk producers are fully supported by their families.

Although women traditionally have the right to revenue from selling milk and dairy products, for a variety of reasons, including unequal access to resources and assets and restrictions on their mobility, they could not easily do so in the past. Low milk yields, difficulties in transportation, lack of refrigeration equipment and remoteness of markets made it difficult for women to take advantage of their position as milk producers and realize valuable profits. IDS brought about major changes, by providing a steady outlet for milk

sales while helping women through training, and feed and fodder development inputs to improve continuously the quality of their milking cows and of the milk produced.

Furthermore, all women interviewed said that their income had increased and 57 percent of them had increased the number of cows they owned as a result of their participation in IDS (Figure 4).

IDS create economic empowerment opportunities for a significant number of women. Few projects in Afghanistan match such success.

In Afghanistan, women’s labour tends to be unrecognized, unpaid and undervalued. Furthermore, in rural Afghanistan, where usually few opportunities exist for farmers to earn cash, the steady inflow of cash that women earn through milk selling gives them a privileged and unprecedented

BOX 3**Faridah (35), a milk producer in HDU, Herat**

Faridah is married and has nine children. She and her husband are farmers. She recalls that before IDS her family was extremely poor. Her husband’s income was low and they were in a bad economic situation. They lived in one room. They had one cow and its milk was not enough for them. After she joined IDS, she started to attend training. The two women trainers from IDS taught her how to improve cattle management. Today, she is an IDS village leader, involved in local politics and a member of HLDU and its governing body.

She learned AI and improved the race of her animals. She also learned how to dry and store dung for heating. She now owns three milking cows, one ox and two calves. Before IDS, she had great difficulties in selling cow milk, while now she can do so at the village collection centre. The amount of milk produced has increased and so has the income she earns from selling it. Her cows currently yield 15–20 litres/day. She keeps five litres/day for family consumption and sells the rest, between 40 and 55 litres milk/day, i.e. an average 47.5 litres per day at a price of Afs17.50/litre. Her income is Afs23 275/month (US\$465).

Authors’ note: this was the yield at the time Faridah was interviewed during the summer, but it is probable that the cows yield less during winter.

Some comments from the Herat questionnaire

"As I have my own income now, I want my daughter to study at university".

"With the increased income from the milk we can pay school expenditures".

"All of them [children] go to school and want to continue their education".

"Before the project they [children] could go to school, now they can go to university".

"They [youth] want to study and gain their own income".

"I bought my son a bicycle to encourage him to study a lot".

economic position in the household. They invest most of their income in the household with positive results for all members of the family, including themselves, and especially children. As a combined result, their social position within the family and community improves. As mentioned before, women milk producers receive close to 50 percent of the retail price to consumers per litre of milk.³⁶

Access to training and expertise

Training has proved to be a crucial component of IDS and key to women's as well as men's empowerment. Thanks to the training received, women and men develop/reinforce skills in caring for animals, feeding, fodder crop production, veterinary services, etc. As a result, milk quality and yield have increased. Increased yield is also a result of cross-breeding possibilities, such as AI, made available by the project.

In addition to technical skills, women learn other valuable skills that enable them to take better care of themselves and their families. For women, who in most cases are illiterate, participation in a training course and the acquisition of new skills have an even more significant impact than on men.

Access to education

A pervasive achievement of IDS is that children – girls and boys alike – have increased access to education as their mothers and grandmothers now understand the importance of education and have the means to pay for the schoolbooks and materials necessary for children's school attendance.³⁷

³⁶ At BLDU, 54 percent.

³⁷ Ninety-seven percent of women interviewed stated that their children had increased access to education because the women can pay the school fees; 3 percent did not answer the question.

BOX 4**Alia (21),* a milk producer, KDU, Kaloe Juma village, Logar**

Alia's mother is sick, so Alia takes care of the family cow. Thanks to the money received from the sale of milk to MCC, Alia can attend school. She says that without IDS this would not have been possible. She calls IDS "her happy chance".

* The names of the people cited in this study have been changed to protect their identity.

IDS have also supported the education of young women. Young women stated in the interviews that they could now also go to school, because they have more time to study. Young women such as Alia (Box 4), who sell milk to MCCs, have used their incomes to pay their way to school. This would not have been possible without the earnings from the sale of milk. Several illiterate women in Karokh district, Herat indicated that if they were given the possibility of learning how to read and write for free, they would gladly do so, possibly because, exceptionally, five of the 12 women interviewed as part of the survey in Karokh were able to read and write.

Hygiene

From conversations with women and men encountered during the mission, it appears that the IDS training received by women has made long-lasting changes not only at a technical level – in the way women manage the cows, how they clean the stables and how they handle milk – but also in how they care for themselves, their houses and their families. With their milk money, women can now buy soap and other products needed for family hygiene.

Nutrition

Through training and their income from milk sales, women participating in IDS have improved nutrition in their households. They now purchase food items that were previously not accessible or available in sufficient quantity, thus allowing for a larger variety of foodstuffs and a more balanced food intake. Several women reported that they have introduced vegetables in the diet of the family whereas, before IDS, they only ate rice and occasionally meat. Their diet contained neither greens nor legumes. Vegetables were considered to be "food for cows". Women sometimes also

received training from other sources. In addition to IDS and HED/MAIL/DAIL, development agencies and NGOs also help women improve gardening techniques and become acquainted with new vegetable varieties. All respondents to the questionnaire indicated that, since participating in IDS, family nutrition has improved: they consume grains, vegetables, fruit, meat and dairy products and food is now more accessible in quantity and quality. Women also stressed that girls and women now eat better than in the past. Some women mentioned that as a result of their improved status since participation in IDS, they now eat with the men and boys, whereas before they had to serve them first and then eat what was left.

Health

After joining IDS, women report buying medicine and accessing medical services for themselves and their families, since they now have the information and the money to do so. As an illustration of this, a woman farmer met in Kunduz said that ten years earlier, she had become very sick and, before IDS, did not have money for medical treatment. She now owns three milking cows and uses the income generated by selling the milk of two cows to cover the needs of the family and the income generated by the third cow is used to buy medicine for herself and her family.

An additional benefit of women's participation in IDS is that they now value education and wish that children of both sexes had finished school before marrying. Eight of 34 women in the Karokh district group meeting were married at 12 years of age, while others were married even earlier, at ages seven and nine. Women stated that the marriage age for both girls and boys had increased on average to 21.5 years of age. The choice to delay marriage and giving birth has a major impact on infant and maternal health and the well-being of families.

Increased social capital and freedom of movement for women

In the Afghan tradition, women in general do not leave their homes, sometimes not even to visit their parents in nearby villages. Through focal group interviews, participants said that the fact that they participate in IDS training, which takes place in other houses in the village, contributes to allowing them an increased level of freedom of movement within their village. Given their increased social capital as "breadwinners" thanks to IDS, they can visit their parents and, in some cases, even receive

their husband's blessing to go to the city, and take part in study tours organized by IDS/FAO in other provinces. Some milk producers even wish to go abroad on tour visits organized by IDS to other cooperatives.

An additional benefit for women after joining IDS is a reduction in their daily workload. "Several women expressed their enthusiasm for the project because, by providing them with the facility to sell fresh milk, they also saved a huge amount of time (as much as four or five hours a day), which would otherwise be taken up with first processing the milk into yoghurt, butter, ghee, etc. and then having to go to the local bazaar (or wherever) to spend time selling the surplus (it not being acceptable to sell to neighbours). This represents significant labour saving for women and also lowers the risk for them in an insecure environment" (FAO, 2012b). This applies also to the increased amount of manure that can be used instead of firewood, so that women do not need to walk long distances collecting wood.

Job creation for men and youth and income-generation opportunities for men

IDS provide employment for 109 men and youth but only eight women, as shown in Table 6. While even this modest number is significant in a country where few job opportunities exist, the gender nature of participation in IDS is a major limitation, and will need to be addressed in future, as stated in Chapter 5.

4.2 INTERMEDIATE LEVEL: INSTITUTIONS AND SERVICES

Female and male participation in cooperative dairy unions

IDS contribute to developing local democracy and social cohesion by applying the cooperative approach. Running dairy unions is a new undertaking and a learning opportunity for both cooperative members and its leaders. Participative management does not come naturally to Afghan farmers faced with the challenge of running their collectively owned entity. Yet they have managed to do so in the four unions visited during this review, and they seem to have developed a sense of ownership of the dairy unions and wish to develop them further.

The participation of women and men in dairy unions can be expressed in terms of their numbers and the nature of their participation, i.e. whether they are involved in union management. As previously described (Section 3.2 and Table 5), the four

dairy unions visited as part of this mission have 5 574³⁸ members of whom 1 540 (27 percent) are women. These numbers are skewed by BLDU, which has 80 percent female membership, while the other unions have 2–3 percent. Numbers in the other unions are likely to increase, thanks to HLDU, which is expanding its outreach to nearby districts – provided it finds the funding needed to continue its development. It may be that the actual numbers of women members may be higher than those registered on paper, since in some cases it appears that a male family member may register on behalf of a female milk producer.

The unions are managed almost entirely by male members. Of the four unions visited, only HLDU has appointed women members to the council, the leadership forum of the dairy union. BLDU plans to appoint its two women trainers in the next year to management roles in order to increase women's participation in the decision-making processes. As previously mentioned, the IDS project has two women trainers for each of the three IDS in Kabul, Kunduz and Mazar-i Sharif.

These initiatives to involve women formally in management are at the early stages, but they provide good opportunities to empower women socially and develop their leadership skills, in a country where women have a long way to go to become politically empowered. They set an example for the other IDS and beyond.

With the notable exception of the two women trainers employed by each dairy union, there are almost no women employed among the IDS project staff. However, this could change with time, as demonstrated by HLDU's and BLDU's experience in involving women as union members and co-leaders.

Dairy unions act to some extent as laboratories for social and gender change, enabling women and men to work together more equitably. Women and men work together in the same union, albeit not “united” but rather in segregated roles, both vertically and horizontally³⁹ and in separate groups, because of cultural and gender barriers pertaining to Afghan traditions. Over time, some barriers become blurred and gender segregation is eased

as has been seen in training with mixed groups or offices where women and men work together in the same space. However, this needs to happen according to the level of readiness of women and men. Exchange visits to other locations and networking with other union members could contribute to facilitating progress in women's and men's empowerment.

IDS entry point in the community

In most cases, IDS use the Community Development Councils (CDCs), set up as part of the MRRD's National Solidarity Programme (NSP), and the local traditional *shuras*⁴⁰ as entry points for social mobilization to form dairy cooperatives. While CDCs are not consistently strong organizations, and women's CDCs even less so, they facilitate IDS social mobilization work leading to the establishment of the unions. This work must have equally reinforced and legitimized CDCs. Although NSP planned to have both male and female *shuras* in CDCs, this was not consistently achieved. MRRD lists 388 CDCs with male-only *shuras*, 377 CDCs with mixed *shuras* and none with women-only *shuras*; furthermore, “female participation and authority in the CDCs varies from highly limited to absent”.⁴¹ Only 4 percent of CDC officials are female.⁴²

IDS contribution to private sector development

The IDS model is both flexible and robust enough to be successfully replicated, as already demonstrated. The five locations where dairy unions were implemented vary considerably from one to the other, proving that the model can be adapted to different geographic conditions, ethnic groups and markets. The model proved flexible enough to accommodate improvements, such as gaining increased independence from the government.

Whereas the first IDS used government land for their factories, HLDU bought the land on which it has built its milk processing factory and feed mill, which has consolidated its independence from the government and its solidity as a private sector entity. If IDS unite to create a national apex entity, this is likely to strengthen IDS further and ensure its increased stability.

³⁸ As communicated by the FAO Afghanistan project in February 2014.

³⁹ Vertical segregation for women in the world of work refers to the fact that women are not involved in decision-making positions (“the glass ceiling”), whereas horizontal segregation refers to the predominance of specialized, gendered occupations that dictate what women and men can engage in or not.

⁴⁰ Local council.

⁴¹ AREU/UN WOMEN, 2013, p. 35, quoting an unpublished MRRD document.

⁴² AREU/UN WOMEN, 2013, p. 15, quoting Disch et al., ARTF at a cross-roads: history and the future – final report (World Bank, 2012).

Some IDS are well-established businesses and have started to diversify into activities such as water bottling. Future expansion of their enterprises could also encourage more inclusive opportunities for women-related activities to provide increased market access and hence increased incomes for women IDS members.

After a relatively short incubation period of approximately five years, 2005–2010, the dairy unions in Balkh, Kabul and Kunduz became autonomous. Since then, they have been operating independently and profitably. Furthermore, all the women and men encountered during the field trip – stakeholders such as MAIL/DAIL and women and men beneficiaries – have expressed their satisfaction with the IDS project and their desire to see that it continues and expands. This is further visible in the answers to the questionnaire, proving people's enthusiasm for participating in the dairy union.

4.3 MACROLEVEL: ECONOMY AND POLICY

Contribution to the national economy and food security with the participation of women and men

The presence of IDS has increased the volume of milk produced and sold in the districts where they operate and provided employment and income-earning opportunities along the value chain for women and men. As such, the project directly contributes to a higher agricultural gross domestic product (GDP) and helps to improve national food security. The fact that three IDS are now operating autonomously without project support suggests that the output generated by an established IDS value chain exceeds its operational cost and makes a net positive contribution to the economy. However, it was not part of the terms of reference for this review to calculate the scale and economic value of the project's contribution of changes, and there is no published economic evaluation on which to make any precise inferences.

Building up the dairy unions on a smallholder farmer base contributes to poverty reduction for women and men, ensuring a regular income and including increased food consumption and improved access to education and health services. It also ensures more independence for small-scale producers, who otherwise fear that they may risk falling under the “control” of larger farmers.

Research conducted in Afghanistan has shown that any development intended to involve rural women will be effective if it has a large compo-

nent of livestock-related activities (Tavva, Martini and Rizvi, 2013). In the conservative patriarchal society of Afghanistan, development initiatives need to be consistent with traditional gender roles and responsibilities in order to succeed. Livestock management is one of the sectors where women can participate and furthermore they are entitled by tradition to retain the proceeds from the sales of the items they produce. IDS were designed based on FAO's technical expertise and long experience in Afghanistan and on its understanding of prevailing gender roles in livestock management in the country. FAO Afghanistan participated fully in the elaboration of the Afghanistan National Livestock Census, cited frequently throughout this report (FAO, 2008). The work of the census was carried out in over 36 000 Afghan villages between 2002 and 2003. As a result, gender relations were placed at the heart of cattle management where they belong in Afghan culture.

Several local governments in Afghanistan expressed an interest in having the project replicated in their province, since they perceived its overall positive social and economic results – increased revenues (including for the state through taxation), on- and off-farm employment, import substitution, better health and nutrition for the population, etc.

IDS as an example of public-private cooperation and collaboration

FAO and MAIL/DAIL have closely cooperated to support the dairy unions. In addition, FAO contributed to the design of the Afghan cooperative law. After IDS became autonomous, MAIL/DAIL continued to provide technical services to the dairy unions. These unions are private entities and should stay so even when they operate on government land, as is the case for KaDU and KuDU. The constructive relationship between the Afghan Government and the dairy unions contributes to increasing union stability. Furthermore, the fact that a dairy union such as BLDU is in a position to pay taxes on its profits is a positive development for the Government. In addition, IDS dairy unions create on- and off-farm employment and provide income-generation opportunities. MAIL/DAIL consider IDS to be the most successful cooperatives in the entire country and are keen to see them expand to other provinces.

Chapter 5

Recommendations and conclusions

The IDS model has many useful features from a gender perspective. As described in Chapters 3 and 4, it has supported rural women and men to generate income for their families, and has generated many benefits in the form of household assets, household nutrition, education and health of children and women, and improved social standing for women participants. The model is continuously improving and upgrading the status of its women participants.

It is not yet clear to what extent (or exactly how) IDS have the potential to create an enabling environment for women that gives them opportunities to overcome gender stereotyped roles as well as the horizontal and vertical segregations that limit their development capacity. However, they clearly have the potential to do so. By way of illustration, Faridah, a woman introduced earlier in Box 3, appears to be empowered socially, economically and politically. She is an HLDU milk producer and at the same time a successful entrepreneur, a village leader in the HLDU training programme and a member of the local and district government. She is a role model for women in her community and part of a small minority of women who seem to be engaged on a development path, thanks to a large extent to the benefits received from participating in IDS.

The fact that women joined men in signing a petition in which they asked donors to continue financing HLDU in order for it to become sustainable is symptomatic of the fact that women seem to have an increased importance in the eyes of the male HDU leaders. A similar petition was signed by KuDU, suggesting a trend among IDS of men union leaders becoming aware of the merits of including women in their appeals for financing from donors. Granted, these actions may also imply that men union leaders try to please the donors by playing the “women card”. Even if this might be the case to some extent, it is still a positive action for women’s promotion, materialized by the selection of women as HLDU co-leaders. It is

worth mentioning that both the regional authorities and MAIL/DAIL endorsed the Herat petition.

All the above examples are encouraging. Yet there are limitations to the project’s achievements. Faridah (Box 3) is an illustration of an IDS gender success story; however, few of the women met during this mission have reached her level of empowerment, and it may be that other factors have contributed to her story. Women have clearly participated and benefited but almost exclusively within the milk production link of the value chain. Although a few women have expanded their traditional roles by participating in union leadership and extending their social networks, for the most part they have been active within the boundaries of their established societal role. Their penetration into collection, processing, sale of milk and dairy products, and feed production and sale has been almost nil. Women have also had a limited role in the governance of the dairy unions that drive the IDS value chains.

The following considerations should help to improve the gender equality of established IDS and the development of newer ones.

- IDS have been successful partly because they have been created with sensitivity to local customs and traditions regarding gender roles. They are developed in a participatory way in order to ensure the buy-in of all actors involved. FAO approaches village CDCs⁴³ and traditional *shuras*, which act as facilitators in project planning. The respect given to local customs has made it possible both to establish IDS and for women to have strong participation, even if only in a limited part of the value chain. However, it does raise questions about future directions. Will it be possible in the future for women to play an expanded role, so that the balance of participation

⁴³ CDCs were created in every village as part of NSP of the MRRD, initiated in 2003.

between women and men becomes more equitable? Conversely, if sales of milk continue to generate income and prestige, will they remain the domain of women?

However, there has been some groundbreaking work in the formation of cooperatives and subsequently the dairy unions, which has been challenging for FAO women and men staff. This is especially true of women trainers who break a double taboo by working with women farmers: first, because they are employees and work away from home, which is not the traditionally accepted model for women and second, because they work with women farmers, which is unusual in many Afghan rural areas. The acceptance of these new gender dynamics suggests that with sufficient patience and work to engage communities, an expanded role for women may be possible. This does, however, cause some risks, as discussed in Section 5.8.

- The high level of recorded participation of women in BLDU only and the presence of women on the Board only in HLDU, raise important unanswered questions with regard to women's participation in the dairy unions. Did women's self-esteem and sense of ownership increase when they became registered union members in their own right, as opposed to being wives of members? Were there additional benefits from being board members? What qualities are required in the institutional context and in individual women to facilitate their participation?

It is clear that union membership brings material benefits to members, whether women or men, such as access to training,⁴⁴ extension services, forage seed and feed concentrate at a reduced price as well as the ability to sell surplus milk on a steady basis. It would be worthwhile to measure the "immaterial" benefits associated with membership in the union accruing to women and the barriers to participation in the management of the Union. BLDU is continuing to promote women: it plans in the near future to include two women in the management of the union.

If more women do become union members and board members, their presence may affect the way unions are run and led,

although it is not clear in what way this impact will be evident.

- Female literacy is relatively high in the provinces where the three longest-established and autonomous IDS are located (30 percent in Kabul, 19 percent in Balkh and 10 percent in Kunduz, compared with a national figure of 13 percent). HLDU, the only union with a notable female presence on the governing board, is also located in a province with relatively high female literacy (18 percent). It will be important to monitor progress in the remaining IDS provinces where literacy rates are lower (11 percent in Logar,⁴⁵ 1 percent in Wardak and 8 percent in Nangarhar).
- There are few women staff within the IDS project team, although it was evident during the field visit for this review that well-trained women project staff are crucial for encouraging the participation and development of rural women in the dairy sector.

In order for IDS to sustain the valuable gender benefits gained to date and generate additional gender achievements, the following actions are recommended.

1. Design a gender strategy for IDS, encompassing human resource management through a gender lens view, both at FAO Afghanistan and at the dairy union level.
2. Recruit a senior woman gender officer in the FAO office in Afghanistan to work with the IDS project.
3. Facilitate additional training inputs for IDS beneficiaries.
4. Explore opportunities for increased participation of women throughout the IDS value chains.
5. Facilitate networking between women IDS beneficiaries.
6. Continue to focus on technical support for small-scale dairying.

The following sections address each of the above recommendations in turn.

5.1 RECOMMENDATION 1. BUILD A GENDER STRATEGY INTO IDS

A gender strategy aims to promote gender equality and women's empowerment. Including a gender strategy within the overall strategy of the

⁴⁴ As has been mentioned, women milk producers who are non-IDS members also benefit from training, as at times they sell their cow milk to MCCs in their villages.

⁴⁵ KaDU has established village cooperatives in the adjoining provinces of Logar and Wardak, while the dairy union is based in Kabul city.

IDS approach would place a specific requirement on the project staff and evaluators to ensure that gender issues be addressed in a systematic way. It would also highlight any gender achievement of the project. Having a gender strategy would enable the project to address gender issues explicitly.

The goals and targets of the gender strategy would then need to be incorporated in project documents, guidelines and work plans.

A strategy would be expected to include:

- increasing the capacity of IDS staff to incorporate a gender perspective into their work;
- ensuring that a sufficient number of women are included within project staff to enable strong communication between the project and women participating in the dairy unions;
- systematically monitoring gender targets (e.g. the level and quality of women's participation and the distribution of benefits) within the IDS reporting system;
- ensuring that any training carried out by IDS is gender sensitive in content and process;
- continually exploring opportunities to expand women's participation in IDS value chains and dairy unions in ways that are sensitive to household and community gender dynamics.

Although a “gender strategy” may cause alarm at the thought of additional work and administration, it does not imply a huge additional burden for the project team. It is more a refinement of what is already being done so that gender issues are considered more explicitly in order to generate and describe the multiple up- and downstream benefits from the project.

All new IDS projects that the Afghan Government or FAO might develop in the future in Afghanistan could be built with an embedded gender strategy, and with the understanding that its implementation will need to be adapted to the level of openness with regard to gender issues prevalent in the respective region of the country. Gender focal points should be nominated for each IDS with the task of managing and monitoring gender issues in close coordination with the FAO/IDS gender manager. A baseline gender study will also need to be undertaken rapidly to document existing data, in order to have a solid base from which to report gender transformation within IDS.

5.2 RECOMMENDATION 2. RECRUIT A SENIOR WOMAN GENDER OFFICER

An essential element of an IDS gender strategy would be the recruitment of a suitably qualified

senior woman manager. Although the FAO/IDS team is extremely professional and knowledgeable in that it includes several senior-level managers with proven track records in livestock management and veterinary science and practice, there is no senior person among their ranks who is trained in gender issues and able to talk to Afghan women. It is not a universal fact that a gender officer needs to be a woman. In Afghanistan, however, only a woman is able to communicate without barriers with rural women, and it is essential to communicate with them directly if their voices and needs are to be heard and adequately addressed. Therefore, it would be necessary to hire a woman and not a man for this position.

In the event that all IDS in Afghanistan create a country-level federation, a possibility that has already been considered, the gender strategy could be implemented at federation level with support from the FAO/IDS gender manager, to be phased out over time. Furthermore, as the FAO/IDS Afghanistan experience might be “exported” to other countries, this gender manager could play a central role in sharing the IDS gender experience and aiding design of a new project's gender strategy.

The FAO gender manager's tasks would encompass:

- developing and implementing a gender strategy for IDS;
- building and managing an IDS database of gender disaggregated data for reporting and decision-making purposes;
- elaborating baseline statistics, local research and surveys regarding gender roles and responsibilities in livestock management;
- conducting an analysis of constraints and opportunities for women and men related to gender, upstream from IDS implementation in new provinces;
- evaluating and monitoring gender change⁴⁶ while ensuring that women retain their

⁴⁶ Gender change is used here to refer to both positive and negative transformations in gender roles and responsibilities among the people operating in different links of the IDS value chain and/or its supporting functions. When positive, these transformations could be communicated with a view to disseminating while, when perceived as negative developments, they could be restrained or stopped. An example of positive gender change is when women farmers become registered members and co-leaders of the unions. Negative practices, from a gender viewpoint, could be those where men try to extract activities from the women's domain that are perceived as being financially rewarding, such as milk selling. A specialist overseeing these actions may facilitate the dissemination of good practices and reduce the negative ones.

prerogatives and are upgraded throughout the dairy value chain and that increased gender benefits are generated;

- supporting the unions and cooperatives in the diversification of their core business to other products and services that could provide increased income opportunities for rural women and their families; and
- supporting the implementation of the recommendations detailed below, aiming to sustain and increase the gender content of IDS.

5.3 RECOMMENDATION 3. FACILITATE ADDITIONAL TRAINING INPUTS FOR IDS WOMEN

Women milk producers involved in IDS participate in regular livestock training in their villages and some of them, on occasion, participate in exchange visits with dairy unions in other cities. For example, women milk producers from Herat and Nangarhar participated in exchange trips to the Mazar Dairy Union organized by the projects and with the support of the unions.

Rural women in Afghanistan tend to be isolated from the “outside world”, given prevailing cultural norms, including restrictions to their mobility. The exchange visits in which they participated through IDS appeared to be particularly beneficial for them, representing a real gender breakthrough. Women who participated in the trips recounted how important it was for them to meet women from other locations, non-family members, and the sense of solidarity and increased self-confidence they derived from the experience.

IDS women beneficiaries represent a sizeable population that could benefit from inputs in entrepreneurship development, vocational training and hygienic milk production in addition to the technical training routinely provided by the project. Field trips and exchange visits combined with leadership, gender training (such as gender sensitization for both women and men, training on combating gender stereotypes, building networks), and lobbying and advocacy could contribute to raising women’s awareness of their rights and improve their position in society. Finally, literacy training would be a great help for IDS women. For instance, it became clear that adult literacy programmes work best when linked with income-generation initiatives. IDS thus offer an ideal setting for this undertaking. IDS could be linked with various relevant projects available at FAO and other development entities, such as NGOs, INGOs and UN agencies.

In some dairy unions, milk is sold by older women, who benefit exclusively from technical training to the detriment of younger women in the household, who do not participate. To sustain the effects of training and promote women’s interests, it is necessary to integrate younger women in training together with the older ones, even if they are not direct “milk money” earners. Once empowered, the IDS development inputs they receive are likely to generate stronger socio-economic and gender benefits for themselves and their families than if given only to older women.

5.4 RECOMMENDATION 4. EXPLORE OPPORTUNITIES FOR INCREASED WOMEN’S PARTICIPATION THROUGHOUT THE IDS DAIRY VALUE CHAINS

As described in Chapter 2, women participate mainly in *link 1* of the IDS value chains – milk production – since this is the link that enables them most easily to conform to social norms.

However, there are possible entry points in other links of the value chain. The following are suggestions of ways to increase women’s participation in links 2–5. These would need to be implemented with care and sensitivity in order not to create conflict within communities, and would not be possible in every district where IDS operate.

Link 2 (milk collection). This is the least capital-intensive link for individual participants, since the union provides both the building and the equipment needed to run MCCs. Furthermore, these operate in the villages, which eases women farmers’ potential involvement as milk collectors. Women already play a role through their village leaders, who spend time in the MCCs overseeing the milk collection processes and sales registration, without being paid for their work. Women could potentially play an even greater role if they were trained to operate in MCCs and were able to work in pairs.

Link 3 (transport). Cultural practices do not encourage women to drive in Afghanistan although some women do. However, women could own vehicles and have them operated by men of their families on their behalf. There is evidence that this is currently happening in Afghanistan, reportedly to a limited extent, in a small-scale dairy value chain in Baghlan.

Link 4 (dairy processing factories). More women could work as employees at the dairy unions, dairy processing factories and feed mills, as accountants, cooks, laboratory operators, fac-

tory workers and managers. Women city dwellers supporting their families are in a good position to do this, since it is more acceptable for them to work in the public sphere, not at a great distance from their homes. IDS could also increase the number of women trainers – bearing in mind that they should work in pairs, to respect Afghan cultural norms – as IDS extend to new areas and increase the number of milk producers they train. Women employees working at IDS should be given more decision-making positions, as BLDU is soon planning to do with two women trainers. All women milk producers can be promoted at this link as officially registered members in all the IDS generalizing practices that already exist at BDU and at a much more limited extent at the other IDS. Moreover, women farmers could be encouraged to have leadership positions within the unions (in line with HDU's existing initiative).

Link 5 (selling points). As explained briefly above, women's bazaars and women's shops have made an appearance in Afghanistan over the last decade and their presence is increasing. Currently, it is not common for milk and dairy products to be sold in these bazaars, but this could change. At least in the locations of the dairy union where women's shops and bazaars exist, women could enter the dairy value chain as wholesalers or retail sellers of dairy products and thus obtain the higher benefits associated with this link. Entrepreneurship training would be important for women operating milk shops.

The well-established dairy unions and cooperatives should be encouraged to diversify their range of products and activities to provide more opportunities for women-oriented projects, such as honey or other agricultural products.

5.5 RECOMMENDATION 5. HELP IDS WOMEN BUILD NETWORKS AT DISTRICT, PROVINCE AND NATIONAL LEVEL

The IDS model is continuously improving and upgrading the status of women participants. Increased networking across IDS projects could be extremely constructive for rural women's empowerment at all levels, while also contributing to establishing the groundwork for women networking at provincial and national levels.

Networking of women is not developed sufficiently in Afghanistan, especially among rural women. Although some women's professional associations exist, such as women's entrepreneurial associations, few such networks exist in rural areas.

One exception is the Women's Entrepreneurial and Social Association (WESA) in Badakhshan. Another is Nesfe Jahan, an association in the process of being launched in Balkh, Herat, Kabul, Mazar-i Sharif and Nangarhar.⁴⁷

Women milk producers could greatly benefit from participating in women's networks or associations, as this would help them increase their social capital, become more empowered and increase their self-esteem. Linking with other women-focused initiatives could also support their overall development status, including aspects of nutrition and health.

5.6 RECOMMENDATION 6. CONTINUE TO PROVIDE TECHNICAL SUPPORT IN SMALL-SCALE DAIRY INDUSTRY APPROACHES

Small-scale dairy industry development has the advantage that women can play diversified roles from the outset, and can continue to participate even when enterprises are financially successful.

The majority of women interviewed in the course of this consultancy indicated that they have increased their number of cattle or plan to do so. In the context of IDS, they have increased facilities to buy cross-bred animals or breed them through AI. Managing improved breeds might be new and challenging for some women, and IDS could help them calculate the optimum number of animals per homestead depending on the resources available, including type and amount of land owned and considering the implications for the women's workload.

The IDS approach has been tailored to the situation in Afghanistan and is evolving as needs, markets and locations change. It is therefore recommended that this model continue to be used for Afghanistan and perhaps elsewhere, and that FAO continue to provide the specialized technical support needed to support future government or development partners' initiatives.

5.7 THREATS TO BE CONSIDERED IN CONNECTION WITH GENDER ISSUES IN IDS

Examples from other countries show that men have taken over those women's activities that generate high revenues.⁴⁸ However, this risk does

⁴⁷ This initiative is conducted by Zardozi, an Afghan NGO whose objective is to link women artisans and women-led micro and small enterprises to markets.

⁴⁸ One example is in Chad, as described in Boutinot, 1998.

not appear to be a concern for IDS in Afghanistan, where cultural traditions are strongly anchored and where men, overall, are pleased with how women handle their involvement in livestock management. In link 1, at least, it seems highly unlikely that women might lose their right to the “milk money” to the benefit of men.

There could be a risk of seeing an erosion in the reasonable price received by women for their milk, if the union leadership decides to increase its margin to the detriment of women producers. One way to mitigate this risk is to encourage women to become union members together with men and become involved in the management and leadership of the cooperatives and unions. It is worthwhile noting that at BLDU, for instance, the average price per litre of milk paid to farmers has increased over the years from Afs16/litre in 2010 to Afs17/litre in 2011, Afs18/litre in 2012 and Afs19/litre in 2013. This means that prices are adjusted for inflation, suggesting that the union is paying fair prices to its members.

Families may buy too many additional cows to increase revenues from milk sales. Most respondents to the questionnaire indicated that they have purchased additional cows since entering IDS, and intend buying more animals in the future. This may put a strain on the quantities of feed available and force farmers to grow fodder instead of crops intended for human consumption, which could have negative outcomes for the farmers’ diet in the long term.

Further along the value chain, where there has been very little involvement to date, it is possible that attempts to increase women’s participation and benefits may be seen as threatening. New developments will need to be handled extremely sensitively in order to maintain the good community relations that have already been established.

Other restrictions to involving women include travel restrictions, cultural norms and physical security – for example, in the fieldwork for the current mission women interviewers could not carry out the work alone but had to travel in pairs.

5.8 CONCLUSIONS

During the mission, the consultants had the opportunity to verify first-hand the significant and sustained cash income from “milk money” that is now accruing to women and their families in rural areas of Afghanistan. This changes their lives positively both in terms of regular cash income and in empowerment and making better decisions on household food security, education and health.

Other noted benefits include reduced labour for women at home for processing milk into low-value milk products and the use of cow dung for cooking that reduces the need for women to collect firewood as well as the associated risks and extra work.

Through the IDS and related activities there has been an increase in the social empowerment of women who can, sometimes for the first time, interact and share experiences at local and at district and regional level.

Involvement in IDS is opening up new market opportunities in the urban centres for rural families.

Women IDS participants share ownership of the project and both women and men in IDS indicated that they like the project and wish it to continue. A petition signed by women representatives in Herat and countersigned by the regional head of DAIL, asking for additional financing from the donor to continue supporting the project, is a good example of the commitment and importance attached to women in IDS.

The IDS approach has proved to have a positive gender impact, which could be sustained and enhanced through the suggested recommendations to generate even greater gender benefits when replicated in other provinces of Afghanistan.

Chapter 6

Checklist for developing gender-sensitive dairy value chains

This section distils the findings from the review into a brief checklist that could be used when planning and implementing the development of dairy value chains in developing countries, in order to make them more gender sensitive. The checklist should be regarded as a preliminary effort. It will be most effective if developed further as part of an integrated set of guidelines on the development of dairy programmes.

6.1 PROCESS

When planning or implementing a dairy value chain, the process followed is as important to gender sensitivity as the content of the value chain design. A gender-sensitive planning process sets the standard for future development of the chain. The following are all important actions to be undertaken.

- **Promote an inclusive approach**, focused on low-income farmers and women. This could include emphasizing approaches suitable for households with limited land and small herds; deliberately targeting a diverse population in terms of gender and ethnicity; and ensuring there is diversity among the people consulted during planning.
- **Ensure that the planning team is diverse and gender sensitized**. A gender-balanced project team trained in gender issues is needed to design and implement a gender-sensitive dairy value chain. In countries where rural women do not routinely interact with men, it is critical to ensure that a sufficient number of trained project staff can interact with women beneficiaries.
- **Identify a legitimate entry point** into the community for social mobilization. A gender-sensitive dairy chain, even when it is introduced with great care, may initially be an unfamiliar idea. Once implemented, it may result in cultural changes that are unpopular with some members of the community. Finding the right entry point makes it possible to interact with the community

and work with them to resolve problems. Working through traditional leadership and *shuras* has proved to be highly effective in IDS developed to date.

- **Use a participatory and culturally aware approach**. For change to occur and be acceptable to all parts of a community, it must be framed within values and norms that are already familiar to that community. If it is completely alien, it will probably be rejected. A dairy chain is much more likely to be sustainable and successful if it is planned together with the local community. To plan and implement a gender-sensitive value chain requires a strong cultural awareness about appropriate ways to approach and engage women, men and youth in rural communities, and how to introduce subjects that may be sensitive. It also means designing training activities that will allow both women and men, and members of diverse ethnic and cultural groups, to participate. This may require separate training activities for women and men or for different ethnic or cultural groups, and possibly even a range of training materials and processes.
- **Build institutional support to promote gender sensitivity**. Strong leadership within the project team is important, as is capacity development of the staff to incorporate a gender perspective into their work and ensure equality in operations, advocacy and lobbying.

6.2 VALUE CHAIN DESIGN

When designing a dairy value chain, it is important to consider the issues that may affect the ability of women and men to participate in or benefit from a dairy value chain, and to ensure that the value chain and its development project are designed in a way that promotes equal participation. When planning a project, it may not be possible to answer these questions, or even to anticipate what

the results of the project might be, but they should be taken into consideration. Gender issues should be checked at three levels.

Macrolevel (national economy and policy)

- To what extent do the laws and policies of the country support or promote equal opportunities for women and men in agriculture and in small businesses?
- How important are small-scale dairy production and processing to agricultural GDP and national food security? Small-scale enterprises owned by families are often more women friendly than large companies – they may be home or locally based, more accessible to people with limited formal education or limited capital, and more culturally acceptable for women than working away from home or within a large company or mixed-gender environment.

Intermediate level (institutions and supporting services)

- Do the local institutions critical to the success of the dairy value chain (e.g. dairy cooperatives and dairy unions) allow equal access to women and men members and in their management and leadership?
- Will women and men have equal access to the information and training opportunities that they need to participate fully in the dairy value chain institutions? Are any special efforts needed to ensure that women can participate? This might include, for example, ensuring an appropriate gender balance in project staff, or physically locating union facilities in places accessible to women.
- Are support services (e.g. animal health and feed production) designed in a way that allows both women and men to access them? Where are they physically located? At what time of day do they work? Are there both male and female service staff?
- Are there likely to be any negative consequences from promoting participation of both women and men in dairy institutions and services? Can anything be done to minimize negative consequences?
- How can women's and men's participation be monitored? Ideally, a monitoring and evaluation system should be included that tracks participation and benefits, and includes indicators that make it possible to identify

women's participation at each link of the dairy value chain and any constraints to participation.

- Are budget lines for minimum expenditures related to gender equality or specific gender activities assigned?

Microlevel (individuals, households, communities)

Assuming that some experience of dairy production exists in the country, even if there is not a fully developed dairy value chain, the following questions need to be asked.

- According to local traditions and customs, what are the usual roles of women, men and children in livestock production, raw milk sales, milk processing and retail milk sales? Will the newly developed dairy value chain replicate those roles? Will any social changes be needed for the dairy value chain to operate successfully? Projects requiring large social change from the outset are much harder and take much longer to initiate.
- Who usually has access to/control over income from the sale of raw milk and income from milk transport, processing and retail milk sales? Is increased income from milk likely to be used to improve family nutrition, health and education of children and women?
- What is the level of knowledge, experience and education in women and men in all the activities needed to develop and operate the dairy value chain? The value chain development will need to include sufficient training, accessible to both women and men, in technical issues, financial management, entrepreneurship and literacy or should link with projects that can provide it.
- What might be the impact for women participating in the livestock production on their workload? How can women's everyday work in the household and productive activities be reconciled?
- What might be the impact for other women who are not directly involved in the dairy activities within the household of a participating woman? These may include younger women and daughters-in-law.

6.3 IMPLEMENTATION

- *Allow time for change to occur.* Implementation of a dairy value chain will take time and particularly if it has the objective of including small-scale farmers, poor farmers and women.

- ***Be patient but persistent*** in promoting adequate participation of women farmers in dairy unions as members and co-leaders. Actions to promote participation may include:
 - paying milk money directly to women farmers;
 - considering the needs of women and children in all activities undertaken;
 - providing support systems that enhance women's participation (e.g. transportation, child care facilities);
 - regularly analysing the links in the value chain to identify their earning potential and help women operate across various links and to the extent possible in links with high earning potential;
 - employing women trainers to ensure access to women.
- ***Provide information, training and opportunities for discussion*** to project beneficiaries, partners and potential allies within communities:
 - explain the benefits for the entire society of measures aiming to attain gender equality and women's empowerment;
 - promote discussion to facilitate breaking gender stereotypes and gender barriers;
 - engage men and boys to promote the inclusion of women;
 - facilitate the formation of women's groups;
 - expose links between gender inequality and gender-based violence/lack of education/poverty.
- ***Progressively strengthen the union as an entity/enterprise.*** Provide support to the union to run the project, which is likely to increase its sense of ownership and management skills. Build accountability at all levels; adopt a results-based management system; have sufficient and balanced human and financial resources, adequate staff capacity development, coordination, coherence and knowledge and information management. When institutions are strengthened and encouraged to promote women's inclusion, they will be able to achieve their goals in dairy production and marketing better.
- ***Promote a flexible model.*** Developing a gender-sensitive dairy value chain requires a willingness to be responsive not only to milk production and market conditions but also to the needs and concerns of participants. Both conditions and expectations may change over time, and so the project team needs to monitor progress and analyse the effectiveness of processes used to interact with participants and other stakeholders. The project team must put effort into working with a range of groups across the participating communities and be willing to listen to their concerns and be responsive to their dynamics. The model should be adjusted and improved with experience.
- ***Networking activities are helpful*** for women and men to see progressive practices used by other communities (such as membership of women in the unions, participation in governing bodies, ownership of vehicles) to their benefit – norms and practices that are local and not from outside. Women and men who visit each other's unions would validate these practices and be empowered by the same sense that they have something to teach others. In this way, networking could subvert entrenched stereotypes in a gentle and acceptable way, contributing to greater gender equality. Networking could be undertaken across different countries with the same beneficial results.

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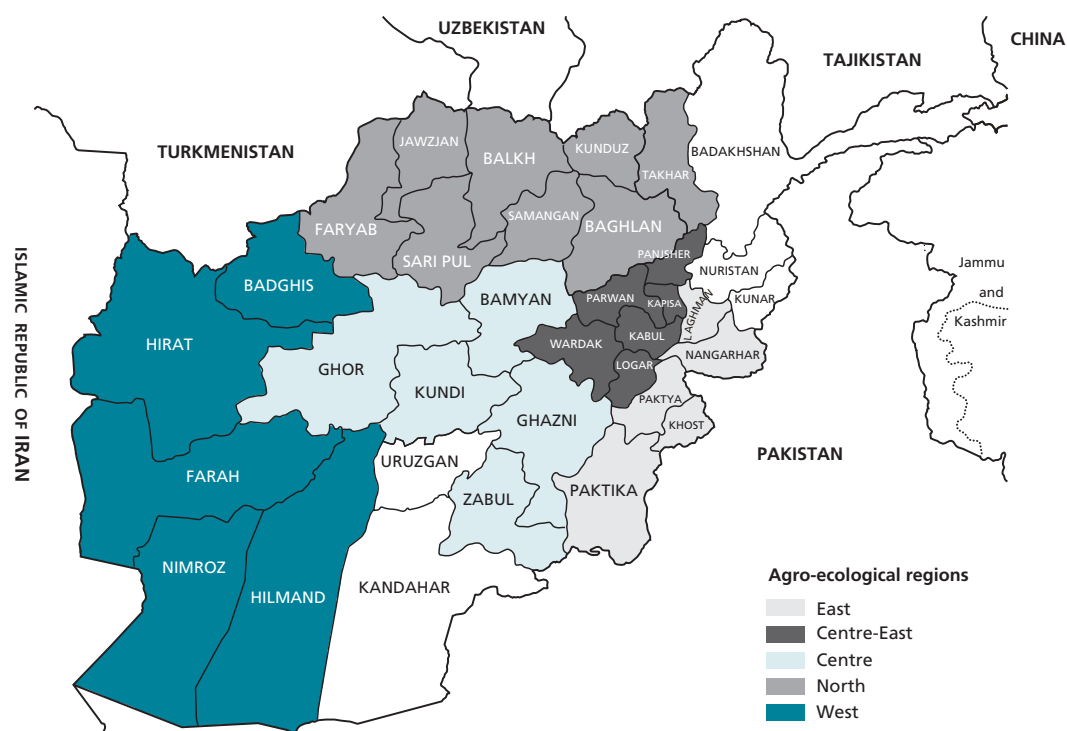
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Annex 1

Map of Afghanistan

(IDS locations: Kabul, Kunduz, Herat, Mazar-i Sharif and Jalalabad)



Annex 2

Herat questionnaire: ownership of cows and land

No.	Code	Village name	District name	No. of cows before IDS	No. of cows at present	No. of <i>jerib</i> before IDS	No. of <i>jerib</i> at present
1	1/12	Baqe Dasht	Karokh	1	2	0.5–1 ha	0.5–1 ha
2	2/12	Baqe Dasht	Karokh	1	1	0.5–1 ha	0.5–1 ha
3	3/12	Baqe Dasht	Karokh	1	2	2 ha	2 ha
4	4/12	Baqe Dasht	Karokh	1	1	2 ha	2 ha
5	5/12	Baqe Dasht	Karokh	1	2	2 ha	2 ha
6	6/12	Baqe Dasht	Karokh	2	4	1.5–2 ha	1.5–2 ha
7	7/12	Darvish Qasem	Karokh	3	1	2 ha	2 ha
8	8/12	Darvish Qasem	Karokh	1	2	0	0
9	9/12	Darvish Qasem	Karokh	3	2	0	0
10	10/12	Darvish Qasem	Karokh	2	2	0	0
11	11/12	Darvish Qasem	Karokh	3	2	<0.5 ha	<0.5 ha
12	12/12	Darvish Qasem	Karokh	1	3	0	0
13	1/14	Koshkak	Enjil	1	2	0.5–1 ha	0.5–1 ha
14	2/14	Siyavoshan	Guzerah	1	1	2 ha	2 ha
15	3/14	Siyavoshan	Guzerah	1	1	1.5–2 ha	1.5–2 ha
16	4/14	Koshkak	Enjil	1	4	2 ha	2 ha
17	5/14	Sefid Ravan	Enjil	1	1	0.5–2 ha	0.5–2 ha
18	6/14	Save	Enjil	1	2	1.5–2 ha	1.5–2 ha
19	7/14	Save	Enjil	1	3	2 ha	2 ha
20	8/14	Siyavoshan	Guzerah	1	2	0.5–1 ha	0.5–1 ha
21	9/14	Save	Enjil	0	2	2 ha	2 ha
22	10/14	Koshkak	Enjil	0	2	1.5–2 ha	1.5–2 ha
23	11/14	Koshkak	Enjil	0	1	0	0
24	12/14	Save	Enjil	1	3	2 ha	2 ha
25	13/14	Save	Enjil	2	2	2–5 ha	2–5 ha
26	14/14	Siyavoshan	Guzerah	1	2	2–5 ha	2–5 ha
27	1/7	Siyavoshan	Guzerah	1	2	0.5–1 ha	0.5–1 ha
28	2/7	Sefid Ravan	Enjil	0	4	0.5–1 ha	0.5–1 ha
29	3/7	Sefid Ravan	Enjil	2	4	2–5 ha	2–5 ha
30	4/7	Siyavoshan	Guzerah	1	3	2–5 ha	2–5 ha
31	5/7	Chongar	Guzerah	1	2	1.5–2 ha	1.5–2 ha
32	6/7	Siyavoshan	Guzerah	1	2	<0.5 ha	<0.5 ha
33	7/7	Siyavoshan	Guzerah	2	2	1.5–2 ha	1.5 –2 ha

Annex 3

Daily activity clock – farmers in Herat

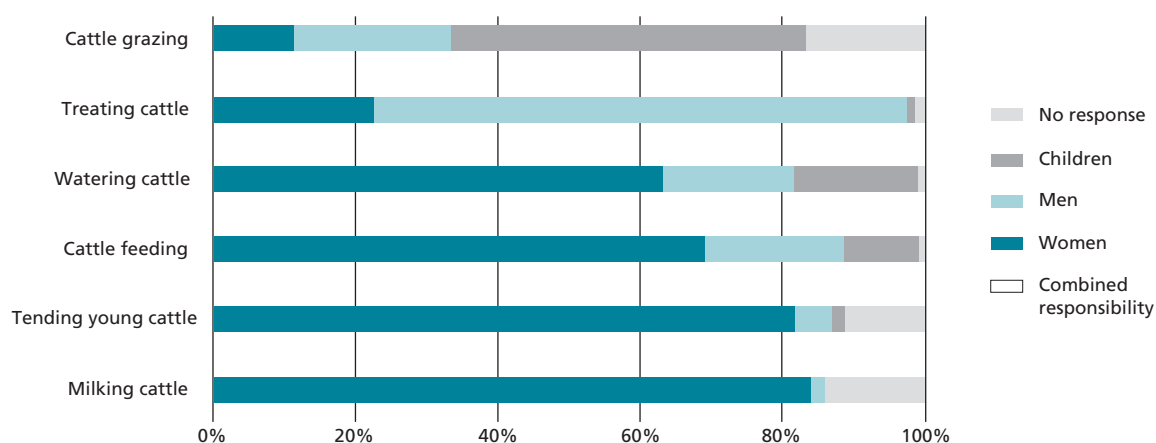
Enjil, Guzerah and Karokh districts, 7 November 2013 (by sex, age groups and in summer)

Hours	Mother-in law ("oldwoman")	Daughter-in-law ("woman")	Granddaughter ("girl")	Father-in-law ("old man")	Son ("man")	Grandson ("boy")
4–5				Read Holy Quran, pray	Read Holy Quran, pray	Go to mosque, to pray and learn Holy Quran
5–6	Pray, milk cows, make dough	Pray, milk cows, send milk to MCC	Pray, milk cows, prepare and have breakfast	Animal care	Animal care, check on land irrigation	Cut and collect crops for cows, deliver milk to MCC
6–7		Feed hens, clean rooms, wash dishes, drink tea		Breakfast, tea	Identify child jobs, advise children	Tea
7–8	Breakfast, send milk to MCC, clean rooms	Tailoring and sewing to earn money	School	Agriculture and field visit	Field work	Get ready and go to school
8–9						School
9–10	Prepare lunch					
10–11		Prepare lunch				
11–12				Tea, TV		
12–13	Lunch, pray	Feed cows and sheep	Lunch, pray	Lunch, pray	Lunch, pray	Lunch, pray, sleep
13–14	Bring in grass, feed cows	Lunch, pray, clean house and barn	Help mother wash/iron clothes, cleaning		Rest, sleep	
14–15		Sometimes meet relatives or rest	Homework, study	Rest, sleep		
15–16	Rest, drink tea, prepare dinner	Feed animals, clean stable, prepare dinner	Prepare dinner	Field visit, animal care, cooperative work	Field work	Field work, animal care
16–17						
17–18	Milk cows, dinner		Milk cows			Pray, study schoolbooks, play football
18–19		Dinner, drink tea, pray	Pray, dinner	Pray, drink tea, rest	Pray, collect crops for animals	
19–20	Pray	TV	Wash dishes, clean kitchen		Dinner, pray, family talk, animal care	Dinner, pray, family talk, homework
20–21			Study	Pray, dinner, TV news, family talk		
21–22	Sleep	Pray, make children's beds ready, sleep	TV, sleep		TV, film	Sleep
22–4				Sleep	Sleep	
4–5						

Annex 4

Gender division of work responsibilities and decision-making in cattle management

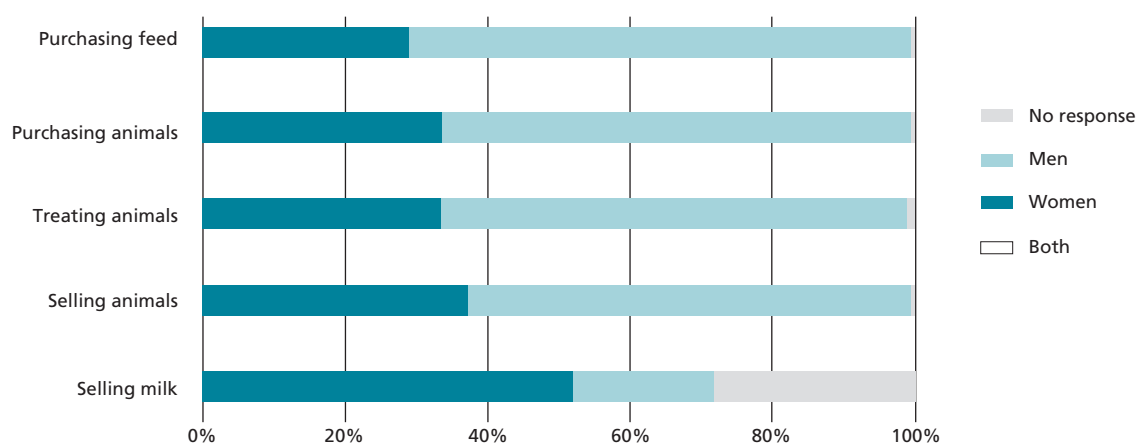
Work responsibilities in cattle management



Source: FAO (2008), Afghan National Livestock Census 2002–2003, Fig. 24, p. 77.

Note: there are no combined responsibilities.

Decision-making in cattle management



Source: FAO (2008), Afghan National Livestock Census 2002–2003, Fig. 27, p. 78.

Note: there are no responses for both.

Annex 5

Herat questionnaire - Karokh questionnaire

No. نمبر	Questions	سوالات	Response (tick where appropriate) جواب (نشانی کردن در جای مناسب)
1	Your name Village name District name	نام شخص نام قریه نام ولسوالی	Shaesta Baque Dasht Karokh شایسته باغدشت کرخ
2	Sex Age	جنسیت سن	Female 42 زن 42
3	Marital status	وضعیت مدنی؟	Married ✓ Widow Single متاهل ✓ بیوه مجرد
4	Number of family members	تعداد اعضای خانواده چند نفر است؟	9
5	Land surface owned before participation in IDS	مساحت زمین خودتان قبل از شرکت در پروژه انکشافی همه جانبه لبنیات چند بوده؟	0 <0.5 ha 0.5–1 ha 2–5 ha >5 ha ✓ زمین نداشتن زمین کمتر از نیم هکتار بین 0.5 تا 1 هکتار بین 2 تا 5 هکتار بیشتر از 5 هکتار ✓
6	Number of cows owned before IDS	تعداد گاوها قبل از اشتراک در پروژه انکشافی همه جانبه لبنیات چند بوده؟	0 1 ✓ 2 3 4 5
7	Have you bought more cows since IDS?	آیا از زمان شروع این پروژه گاو های بیشتری را خریداری نمودید؟	1 2 ✓ 3
8	Do you plan to buy additional cow(s)?	آیا پلان خریداری گاوهای بیشتر را دارید؟	Yes ✓ No If yes, how many? 1 بلی ✓ نخیر اگر بلی به چی تعداد؟ 1
9	Are you literate?	آیا سواد دارید؟	Yes No ✓ بلی نخیر ✓
10	Are you a member of IDS?	آیا عضو پروژه انکشافی لبنیات هستید؟	Yes ✓ No بلی ✓ نخیر

Herat questionnaire - Karokh questionnaire (cont.)

No. نمبر	Questions سوالات	Response (tick where appropriate) جواب (نشانی کردن درجای مناسب)
11	Do you play a role in IDS (group leader, committee)? آیا کدام نقشی در پروژه انکشافی لبنیات دارید؟ (ریس گروه یا جامعه)	Yes No <input checked="" type="checkbox"/> Please describe بلی نخیر <input checked="" type="checkbox"/> لطفاً توضیح دهید
12	Do you have other income-generation activities? آیا کدام در آمد دیگری دارید؟ Before IDS قبل از پروژه انکشافی لبنیات After IDS بعد از پروژه انکشافی لبنیات	Yes No <input checked="" type="checkbox"/> Please describe بلی نخیر <input checked="" type="checkbox"/> لطفاً توضیح دهید
13	Are you a salaried employee? آیا کدام معاش مشخصی دارید؟ Before ID قبل از پروژه انکشافی لبنیات After IDS بعد از پروژه انکشافی لبنیات	Yes No <input checked="" type="checkbox"/> Please describe بلی نخیر <input checked="" type="checkbox"/> لطفاً توضیح دهید

1 Nutritional status in the family after IDS وضعیت تغذیه در خانواده بعد از برنامه انکشافی لبنیات

No. شماره	Question سوال	Response جواب
1a	Has family nutrition changed? آیا وضعیت تغذیه خانواده تغییر کرده؟	Yes <input checked="" type="checkbox"/> No Please describe: we have more income بلی <input checked="" type="checkbox"/> نخیر لطفاً توضیح دهید: در آمد ما افزایش یافته
1b	Is food now more accessible in quality? آیا حالا غذای با کیفیت در اختیار خانواده میباشد؟	Yes <input checked="" type="checkbox"/> No Please describe بلی <input checked="" type="checkbox"/> نخیر لطفاً توضیح دهید
1c	Do women and girls eat better and more than before? آیا زنان و دختران غذای بهتری و بیشتری نسبت به گذشته می خورند؟	Yes <input checked="" type="checkbox"/> No بلی <input checked="" type="checkbox"/> نخیر
1d	Does the family consume all these food groups? آیا خانواده ها همه این گروه های غذایی را مصرف می کنند؟	Grains <input checked="" type="checkbox"/> Vegetables <input checked="" type="checkbox"/> Fruit <input checked="" type="checkbox"/> Meat <input checked="" type="checkbox"/> Dairy <input checked="" type="checkbox"/> حبوبات <input checked="" type="checkbox"/> سبزیجات <input checked="" type="checkbox"/> میوه ها <input checked="" type="checkbox"/> گوشت <input checked="" type="checkbox"/> لبنیات <input checked="" type="checkbox"/>

2 Youth situation in the family after IDS

وضعیت جوانان در فامیل بعد از پروژه لابیات

No. شماره	Question	سوال	Response	جواب
2a	Do girls receive more education?	آیا میزان تحصیلات دختران افزایش یافته؟	Yes ✓ No Please describe: we understand the value of studying	بلی ✓ نخیر لطفاً توضیح دهید: ما ارزش درس خواندن را فهمیدیم
2b	Do boys receive more education?	آیا میزان تحصیلات پسران افزایش یافته؟	Yes ✓ No Please describe	بلی ✓ نخیر لطفاً توضیح دهید
2c	Do girls marry later?	آیا دختران دیرتر ازدواج می کنند؟	Yes ✓ No Please describe: Age 20–22	بلی ✓ نخیر لطفاً توضیح دهید در سن 20–22 ازدواج میکنند
2d	Do boys marry later?	آیا پسران دیرتر ازدواج می کنند؟	Yes ✓ No Please describe: Age 22–26	بلی ✓ نخیر لطفاً توضیح دهید در سن 22–26 ازدواج می کنند

3 Men and women's social status after IDS

وضعیت اجتماعی زن ها و مردها بعد از آغاز پروژه لابیات

No. شماره	Question	سوال	Response	جواب
3a	Do men perceive women differently?	آیا دیدگاه مردان نسبت به زنان تغییر کرده؟	Yes ✓ No Please describe: They change in a positive way	بلی ✓ نخیر لطفاً توضیح دهید: آنها در راه مثبت تغییر کرده اند
3b	Do women perceive women differently?	آیا دیدگاه زنان نسبت به زنان تغییر کرده؟	Yes ✓ No Please describe	بلی ✓ نخیر لطفاً توضیح دهید
3c	Do men and women's roles change?	آیا نقش زنان و مردان تغییر کرده؟	Yes ✓ No Please describe: They work together	بلی ✓ نخیر لطفاً توضیح دهید: انها حالا با هم کار می کنند

3 Men and women's social status after IDS (cont.) وضعیت اجتماعی زن ها و مردها بعد از آغاز پروژه لبنیات

No. شماره	Question سوال	Response جواب
3d	Do women have increased negotiating power in the family? آیا قدرت مباحثه زنان در خانواده افزایش یافته؟	Yes ✓ No Please describe بلی ✓ نخیر لطفاً توضیح دهید
3e	Do women have increased negotiating power in the community? آیا قدرت مباحثه زنان در جامعه افزایش یافته؟	Yes ✓ No Please describe بلی ✓ نخیر لطفاً توضیح دهید
3f	Do women have increased negotiating power within IDS? آیا قدرت مباحثه زنان در پروژه انکشافی لبنیات افزایش یافته؟	Yes ✓ No Please describe بلی ✓ نخیر لطفاً توضیح دهید
3g	Do women have increased political roles (local government)? آیا نقش سیاسی زنان در دولت افزایش یافته؟	Yes ✓ No Please describe: We can participate in political meetings (election meeting) بلی ✓ نخیر لطفاً توضیح دهید ما حالا در انتخابات و جلسات سیاسی شرکت میکنیم
3h	Has the amount of work for women changed since IDS? آیا مقدار کار زنان از زمان شروع این پروژه تغییر کرده؟	Increased ✓ Stayed the same Decreased افزایش یافته ✓ مثل سابق است کاهش یافته
3i	Has the amount of free time for women changed since IDS? آیا از شروع این پروژه وقت آزاد بیشتری پیدا کردند؟	Increased ✓ Stayed the same Decreased افزایش یافته ✓ مثل سابق است کاهش یافته

4 Income generation at family level after IDS

عاید در سطح خانواده بعد از آغاز پروژه لبنیات

No. شماره	Question سوال	Response جواب
4a	Did your income increase? آیا درآمد شما افزایش یافته؟	Yes ✓ No Please describe: Because I have two cows بلی ✓ نخیر لطفاً توضیح دهید: چون 2 گاو دارم
4b	Do you see any improvement in your cow breeds? آیا شما کدام پیشرفت یا تغییری در گاوهای نسلی خویش می بینید؟	Yes ✓ No Please describe بلی ✓ نخیر لطفاً توضیح دهید
4c	Did your cow milk yield increase? آیا شیر گاوهای شما افزایش یافته؟	Yes ✓ No Please describe بلی ✓ نخیر لطفاً توضیح دهید
4d	How many litres of milk do you sell per week? هفته ای چند لیتر شیر شما می فروشید؟	< 5 5 – 10 10 – 15 15 – 20 > 20 ✓
4e	Has your cow manure quantity increased? آیا مقدار سرگین گاوهای شما افزایش یافته؟	Yes ✓ No بلی ✓ نخیر
4f	For what purpose do you use your cow manure? Please describe. If you sell your cow manure, how much is your weekly/annual income? سرگین گاوها را به چه هدفی استفاده می کنید؟ لطفاً توضیح دهید، اگر سرگین گاوها یتان را می فروشید چقدر میشود درآمد شما در ماه یا سال؟	Use it as fertilizer Use it for fire Sell it عنوان کود استفاده می شود برای آتش کردن استفاده می شود برای فروش
4g	Do you sell breed calves? آیا شما گوساله های نسلی را می فروشید؟	Yes ✓ No بلی ✓ نخیر
4h	What is the price difference between local and breed calves? چه مقدار تفاوت قیمت هست بین گوساله های وطنی و گوساله های نسلی؟	A lot بسیار زیاد

4 Income generation at family level after IDS (cont.)

عاید در سطح خانواده بعد از آغاز پروژه لبنیات

No. شماره	Question	سوال	Response	جواب
4i	Do you buy fodder? (per week)	آیا شما علوفه یا علف می خرید؟ هر هفته	Yes No ✓ Please describe	بلی نخیر ✓ لطفاً توضیح دهید
4j	Did you sell cow milk before IDS?	آیا شما شیر گاوهای تان را قبل از پروژه لبنیات می فروختید؟	Yes No ✓ Please describe	بلی نخیر ✓ لطفاً توضیح دهید
4k	How many litres per week did you sell?	هفته ای چند لیتر شما می فروختید؟		

5 Social improvement at family and village level

بهبود وضعیت اجتماعی در سطح خانواده و قریه

No. شماره	Question	سوال	Response	جواب
5a	Who receives and who controls the milk money?	چه کس پول شیر را دریافت و کنترل می کند در خانواده؟	Woman ✓ Man	زن ✓ مرد
5b	For what purpose do you use the milk money?	پول شیر را به کدام هدف به مصرف می رسانید؟	School materials ✓ Clothes ✓ Soap ✓ Food for the family ✓ Animal feed ✓ Traditional uses ✓ Medical ✓ Other ✓	لوازم مکتب ✓ لباس ✓ صابون ✓ غذا برای خانواده ✓ علف برای حیوانات ✓ مصارف سنتی ✓ دوا ✓ چیزهای دیگر ✓
5c	Who receives and who controls the money from the sale of manure?	چه کسی دریافت و کنترل می کند پول سرگین را؟	Woman ✓ Man	زن ✓ مرد
5d	Who receives and who controls the money from the sale of breed calves?	چه کسی دریافت و کنترل میکند پول فروش گوساله نسل را؟	Woman Man ✓	زن مرد ✓

6 Capacity building

ارتقا ظرفیت

No. شماره	Question سوال	Response جواب
6a	Did you receive any training before participating in IDS? قبل از آغاز پروژه لیبیات شما در برنامه آموزش اشتراک کرده بودند؟	Yes No ✓ بلی ✓ نخیر
6b	In which field was training received from IDS? در کدام بخش ها ی این پروژه شما ترنینگ دیده اید؟	Please explain. Hygiene, cow sickness, stablel در بخش نگهداری و تغذیه گاو AI اصلاح طویله و بهداشت لطفاً توضیح دهید
6c	What changes have come into your life through training? چه تغییراتی در زندگی شما آمده در جریان ترنینگ ها؟	Good life, comfort and self-confidence زندگی راحتتر و بهتر
6d	Does training have an effect on your social life? (participating in meetings, workshops, exchange visits) آیا این پروژه کدام تاثیری در زندگی اجتماعی شما داشته؟ (شرکت در جلسات، ورکشاپ ها، ملاقات از بعضی جاها)	Yes. Increased social communication بلی روابط اجتماعی هم خوب شده

What recommendations can you make to improve IDS?

پیشنهاد شما در پیشبرد هر چه بهتر این پروژه چیست؟

We hope you continue to support us, and this project, since our lives have completely changed in a positive way.

ما می خواهیم این پروژه ادامه داشته باشد برای مدت دوامدار ما را حمایه نمایند در موجودیت پروژه در زندگی ما تغییر مثبت رونما گردیده است.

Empowering women in Afghanistan

Reducing gender gaps through
Integrated Dairy Schemes

This publication assesses the gender impacts of the Integrated Dairy Schemes (IDS) approach in Afghanistan and results from a field mission to Afghanistan, interviews with beneficiaries and key public and private stakeholders, combined with analysis of secondary data. Findings confirmed that the IDS approach has a sustainable positive impact on rural Afghan women and their families, both in terms of increased income availability and social empowerment. Therefore, further use of this approach, integrating gender dimensions, is encouraged in the design, implementation and evaluation of dairy interventions in Afghanistan and elsewhere.

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